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HEALTH ACTIVITIES IN COLLEGES AND UNIVERSITIES.

A DISCUSSION OF THE AIMS, ORGANIZATION, ACTIVITIES, AND PROBLEMS OF A STUDENTS' HEALTH SERVICE.

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INTRODUCTION.

A very significant trend in education during the past few years is shown in the recognition that health is fundamental to sound intellectual development and that the rigid regulation of all things pertaining to the hygiene of students is indispensable. Generally speaking, there is serious economic and academic loss year after year in our schools, colleges, and universities, due to lassitude, indisposition, illness, and epidemics among students, all more or less preventable.

For many years universities have inquired into and passed regulations respecting the conduct and habits of students with a view to maintaining and increasing mental efficiency. The university has said to the student: "You must not dissipate. You must not indulge in frequent and late hours of social activities. You must not do this or that which interferes with your studies." No serious or worthy objections have been voiced against the assumption by the university of the authority to enforce such regulations.

With a realization of the importance of health and the advance in preventive medicine, the universities see that by special measures for safeguarding the health of their students one of the chief roots of academic loss and inefficiency is reached. Who can justly question, then, the authority of a university to make provisions for service of this kind?

With a view of providing an agency to deal with the problem of students' health, many colleges and universities have established, or anticipate establishing, a students' health service. In order to support such an activity, the student is required to pay an annual health fee. Naturally there has been much misunderstanding, and some criticism has been directed toward the university as a result of this fee. Physicians have asked: "Why should I be burdened with

this fee? Can I not treat my own children?" Again, certain religious sects have honestly objected to the inauguration of a students' health service on the grounds of unbelief in certain medical treatment.

The contraventions to this new move on the part of the colleges and universities would perhaps be justifiable if the health services established were concerned solely with medical treatment. Let us suspend judgment until the aims of a students' health service have been considered.

At the outset of this discussion let me impress the reader with this fact: The problem of the university respecting health regulations is not one of medical philanthropy but rather one of broad economy. A health service should not be established as a form of contract practice, nor should it be considered a "health insurance" as the term is usually understood. On the other hand, a university health service should be primarily concerned with the prevention of disease and with maintaining a high degree of health among the students.

AIMS OF A STUDENTS' HEALTH SERVICE.

1. A university health service should be as much concerned with the physical welfare of the sound student as it is with that of the ill or the subnormal. In this respect it differs from other health agencies. Instead of concentrating all its activities on the 1 to 5 per cent who are afflicted, it should be actively interested as well in the 95 to 99 per cent who do not feel the necessity of consulting a physician.

For two fundamental reasons every self-deemed sound student should be given a complete physical examination at least once each year: For the early detection of unrecognized disorders that may prove serious in time if allowed to continue; and to help in impressing every student with the importance of maintaining active, vigorous, positive health.

Any one who is informed regarding the findings of the examining boards in the physical examinations for entrance into the Army, or with the findings of those who examine entering students at universities where health services have been established, realizes the value of at least one physical examination a year of every student, whether he is apparently physically sound or not. Even when the findings are negative, the assurance that he is physically sound is of value. This is especially true in many cases in which the students concerned have been mistakenly led to think they are not sound physically. And in cases where unrecognized or incipient disorders do exist, by the early detection of those disorders and proper advice or treatment much good can be done. Also there is real need of

bringing every student to a realization of the value of keeping up a positive, active normality; and provision must be made whereby this can be done.

In its interests and activities in behalf of the physical welfare of all students, the university health service is inextricably interwoven with the department of physical education.¹ Not only should the health service insist on daily exercise on the part of all students in the university, and the faculty, as a direct health measure, but it should emphasize as well the importance of a properly developed active body—the Greek ideal.

The usual caricature of the average student—a stoop-shouldered, hollow-chested, horn-bespectacled, anthropoid—has altogether too much truth in it. The movements of the average student are lumbering and awkward, the very antithesis of alertness and determination. Further, the academic training of the university tends to make one reflective and inactive; and a more or less permanent habit of reflection and dreaming is often acquired at the expense of "doing."

Faulty posture, slovenly lazy motion, and inactivity are decidedly harmful physical habits. One of the chief concerns of the health service should be to help to stamp indelibly upon all students in the university a determination to possess a sound, properly developed, active body, and a prepossessing personality. The college student should possess all those physical characteristics which stand for harmonious and healthful development, correct and assertive poise, dexterous and efficient motion. "He walks like a soldier," is decidedly complimentary. Why not develop a university type of physique? Let the highest of praise of physique and carriage be: "He has the bearing of a collegian."

From the foregoing discussion it is readily seen that a university health service is, indeed, very much concerned with the physically sound students—both in the attainment of positive health and in the provision for assuring continuance of this health during the academic as well as post-academic life.

Other and related activities of a university health service are:

2. Protection of the sound student from the communicable diseases generally brought to the university.

3. Detection, isolation, and provision for the treatment and care of all students who are victims of communicable diseases.

4. Advice to, and treatment, and, when necessary, provision for the care of all students who are ill.

5. Reclamation: Early detection, and correction so far as possible, of beginning bodily disorders such as the degenerative diseases.

¹ The interrelation of the students' health service and physical education is discussed in "School and Society." Vol. VIII, Nos. 201, 202, 203, 1918.

6. Reconstruction: Correction, so far as possible—by advice regarding proper exercise and right living, and by treatment when advisable—of defects in all subnormals.

(The foregoing objects are to be reached through the personal division of a university health service.)

7. The students' environment must be made as hygienic as possible. Hence, the division of sanitation must concern itself with the sanitary conditions both on and off the campus. Campus buildings, rooming houses, and boarding houses must be inspected and regulated so far as possible.

8. Finally, every student should be made familiar with the elements of personal and public hygiene. In many respects education is a most important branch of the work of a health service.

ORGANIZATION AND ACTIVITIES.

The various activities of a health service are closely interrelated. They can, however, be divided into three groups or divisions: I. Personal attention; II. Sanitation; III. Education.

I. Personal Division.

Physical examinations.—It should be the aim of the students' health service to have on file a complete confidential physical record of every student in the university. It should urge the need of a requirement that every student be given a physical examination at the beginning of each school year.

The value of these physical examinations may be stated as follows:

(a) The determination of the physical condition of each student so that proper supervision of his activities will be possible in building up, when necessary, and in maintaining a healthy, harmoniously developed, active physique.

(b) As already suggested, great good often comes from these physical examinations, in the assurance to a student that he is physically sound. This has been not only our own experience, but also the experience of others. Let me quote from a Harvard report:

But the greatest value of this examination to my mind, and with this I have been strongly impressed, is not so much the detection of existing disease but the assurance of a larger group of boys who think that they have disease that they are really sound. Curiously enough, there were more boys who thought they had a serious organic defect, usually of the heart, and were found entirely sound, than boys who thought they were well and had disease. In many instances boys were worrying over ailments that were purely fanciful; but this worry was having a considerable effect upon their general condition. The importance of the compulsory physical examination seems to be as much the correction of erroneous ideas concerning disease in the healthy as the detection of disease.

Unfortunately, many people are started out in life on the wrong track. They are led to think that they are weaklings and are physically unable to do many things essential to happiness and success.

An amazingly large number of people who are organically sound live a long life of limited usefulness or utter uselessness, and prove to be serious economic burdens to both family and society, simply because of the fatuous sympathy of overindulgent parents and an early attitude of servility on the part of the family and friends.

Again many students have fallen into the clutches of quacks and mountebanks. The sensational advertising of these charlatans, describing certain normal physiological processes as being abnormal, may have fallen into their hands and morbidly influenced them. As a consequence, many students entering the university are the victims of either pernicious early advice and care or of quackery. Naturally there are associated with these conditions various mental disturbances—neuroses and psychoses. The student under such conditions has become, as a rule, introspective and melancholy. No greater delight is afforded the service than to assure one of these victims that he is physically sound. This assurance must be followed by frequent periods of advice and mental therapeutics. Thus mental hygiene must play an important rôle in all university health services.

(c) Another value of physical examination is that the early detection and isolation of those having communicable diseases protects the healthy students from the many grave communicable diseases that annually creep into the university.

We are beginning to realize more and more that a knowledge of the physical conditions and the regulation of the personal hygiene of the individuals making up a unit or closely associated group are fundamental in all community health activities. It is the custom nowadays for a municipality or State to pass drastic laws regulating garbage disposal, the location of corrals and pig styes, the cleanliness of slaughterhouses, and the distribution of milk and foodstuffs. Commendable as these laws are, they do not strike at one of the chief dangers. While such laws may be rigidly enforced, a typhoid carrier, a victim of tuberculosis, or one who has a mild case of any one of the serious communicable diseases, may sow these diseases broadcast. One tuberculous person or typhoid carrier in a community may do as much harm to the individuals therein as lax enforcement or even nonrecognition of the laws pertaining to sanitation. It is not difficult to see the incongruousness of a regulation which requires the screening of foodstuffs and at the same time makes no provisions whatsoever for determining whether the person who prepares the food or distributes it is a typhoid carrier.

An example of the value of physical examination for the purpose of isolating and treating germ carriers is seen in the recent Students Army Training Corps examinations at the University of Minnesota. Of the young men who stood in line for physical examination, one was in the eruptive stages of smallpox, two had measles, one had

scarlet fever, and several had tuberculosis—one of whom was in such an advanced stage of the disease that he died several days later. Also other communicable diseases were detected. Let us suppose that these examinations had not been made, as is the civilian custom, and that the infected ones had been allowed to mingle with the other students in their various activities, both in classrooms and barracks. The inevitable result would have been various epidemics with their accompaniments of death, sorrow, and an inestimable academic and economic loss to the university and country.

Probably 75 per cent of all illness among students is more or less communicable in nature. Sound students only too frequently contract fatal diseases through innocent association with germ carriers and distributors. One student with the so-called "chronic cough" may infect numerous individuals with tuberculosis. Carriers of diphtheria, typhoid, or even meningitis, may sit in classrooms and share rooms with healthy students.

Venereal diseases must be completely eradicated.

So important are physical examinations with a view of detecting and isolating carriers of communicable diseases that all students, all members of the faculty, and employees who come in contact with students, should be examined annually at the beginning of the school year.

It will be readily seen from the foregoing discussion that to provide for the physical welfare and proper development of the sound student and to protect him from infection by others is a most important part of the work of a university health service. Is not this service alone worth the fee?

(d) Another important value of frequent thorough physical examination is in the early detection of beginning degenerative diseases, and the determination and correction of physical defects, both of which contribute to subnormality.

It is well known that the so-called degenerative diseases are on the increase in the United States. Various life-saving agencies have found in their investigations that as the mid-period of life is approached a sound, normal physique is a rare finding.

One-third of two and a half millions of our young men—young men in the very prime of American manhood—failed to pass the physical tests for military fitness under the selective-draft law during the first draft in 1917-18.

In the recent Students Army Training Corps examination at the University of Minnesota, of 3,403 young men—ages chiefly 18, 19, and 20—it was found that about 10 per cent were subnormal and consequently were either accepted for limited service or placed in Group B. Disorders of nutrition, circulatory abnormalities, valve deficiencies, defective vision, bad teeth, infected tonsils, hernias,

abnormalities of posture, flat feet, were among the common causes of rejection. Many had albumin in urine, some had sugar.

Many of these defects are correctible. Others, again, can be greatly improved by treatment and advice. The retrogressive changes can usually be arrested. Making provisions for reconstruction and reclamation in such cases should be an important activity of the personal division of a university health service.

Vaccinations and inoculations.—Prophylactic vaccinations against smallpox and inoculations against typhoid fever, diphtheria, and pneumonia should be provided for.

Treatment and care of ill students.—Proper care must be taken of the carrier of, and of those who have contracted, communicable diseases. As soon as they are detected, adequate isolation, medical attention, and care must be provided for them. All students who are ill or in need of medical advice must be given the necessary attention.

Dispensary cases: Arrangements should be made for physicians and nurses to give advice and treatment to ambulatory cases—dispensary patients. Medical advice, treatment of minor ailments, the necessary vaccinations and inoculations, the preparation of autogenous vaccines, and the early detection of communicable diseases are among the invaluable services of the dispensary and associated laboratory.

Hospital cases: Frequently patients must be put to bed and cared for and in many instances isolated. Hence, the necessity of providing both a general hospital and an isolation hospital.

Laboratory: A laboratory well equipped with everything necessary for making the usual laboratory diagnosis is absolutely essential for an efficient health service. It is required in all physical examinations and in the early detection of many communicable diseases.

University regulations necessary.—In the efficient administration of a student's health service certain university regulations pertaining to examinations, hygiene, and sanitation are needed. The following regulations pertaining to the personal division of the work should be adopted and enforced in every university:

1. Students entering the university for the first time shall present themselves to the university health service for physical examination before matriculating. (These examinations should be coordinate with those given by the department of physical education.) Registration will be refused any student whose physical condition is regarded by the health service as dangerous to the health of the other students.

2. Members of the faculty entering the services of the university must obtain a certificate of health from the university health service.

3. All new employees of the university who prepare and serve food to the faculty or students must be approved by the university health service.

4. At any time during the school year upon request of the university health service any student, instructor, or employee must submit himself for physical examination.

5. Instructors or officers must report to the university health service any student or employee having or suspected of having any communicable disease (for example,

anyone with a chronic cough). Upon examination of such student or employee a report with recommendations will be furnished the dean or officer concerned.

6. An instructor or officer of the university suspected of having any communicable disease must, upon request of the president, dean, or official concerned, submit himself for examination at the offices of the university health service.

7. It is the duty of matrons, officers, or those in charge of fraternities, sororities, clubs, and rooming houses to report to the university health service students suspected of having any communicable disease and to report all illnesses which confine students to their rooms.

8. Students, instructors, and employees who come in close contact with students, who are absent from classes or from regular duties at the university on account of illness of a communicable nature, must, before renewal of attendance or duties, present to the dean or official concerned a permit from the university health service.

II. Sanitation.

Environment plays an important rôle in disease causation and prevention. This is especially true of communicable diseases. It is most important to know and to regulate, so far as possible, the conditions under which students live, the food and water ingested, the air breathed, etc. The division of sanitation is therefore no minor part of a university health service, and ample provisions must be made for this branch of the work. The environment of the student, both on and off the campus, must be regulated and made as sanitary as possible.

1. *University buildings and campus.*—A sanitary survey of the campus and its buildings should be made. As a consequence much will be learned to aid in determining just what is needed in sanitation.

For each building on the campus utilized by students a voluntary health officer—some interested member of the faculty who occupies the particular building for the greater part of his time—may be appointed. It has been the writer's experience that these voluntary health officers for campus buildings are among the most valuable aids of a health service. The voluntary health officer will supervise in general the enforcement of the regulations pertaining to heat, ventilation, light, drinking water, and janitor service. Only too frequently does the janitor need both firm and intelligent supervision. Convenient boxes may be placed in each building to receive suggestions, complaints, and recommendations relative to the improvement of conditions.

For the buildings and campus as a whole, an inspector of sanitation should cooperate with the superintendent of buildings and grounds and the voluntary health officers for each building.

Meetings of the voluntary health officers should be called from time to time for the purpose of discussing problems of sanitation. The writer takes this opportunity to assure anyone concerned with the direction of a university health service that these meetings will be enthusiastically attended, and much good will be derived therefrom.

It is difficult to formulate general regulations for campus buildings. What is essential for the sanitary activities of an old building is not at all essential for the new. One building may be the sanitary conception (if there was one) of 50 years ago, while another, the latest building erected, may be constructed in accord with the most recent ideas of sanitation. Again, buildings are utilized for different purposes; hence different sanitary codes to fit each must be made.

REGULATIONS.

The following general regulations may be adopted pertaining to campus sanitation:

REGULATIONS FOR CAMPUS SANITATION.

1. Spitting on the walks of the campus, on the steps of a university building, or on the floors of the halls or rooms of any university building is hereby forbidden. Violation of this rule will render the offender liable to suspension from the university. It shall be the duty of all officers and employees of the university to report violations of this rule to the health service. (Spitting in public buildings violates the law in most States.)

2. Classrooms shall be swept and dusted after the class periods of the day are over. Sweeping compound or some other material for allaying dust shall be used in sweeping. All blackboards shall be thoroughly cleansed, unless otherwise indicated, at the close of the day. The crayon dust which accumulates on the catch board must be thoroughly removed at the close of each day's work.

3. Rooms must be thoroughly ventilated between class periods. (Electric fans may be used to accelerate this ventilation.)

4. Thermometers shall be provided for all classrooms and the temperature should be held constant at 68-70° F. Provisions should be made for increasing the humidity of rooms which are excessively dry.

5. The voluntary health officer of buildings which contain large assembly rooms must be notified beforehand of proposed meetings. He shall then make provisions for the best possible ventilation of assembly rooms during use.

6. All lockers used for clothing must be thoroughly cleaned and disinfected at least once each year, and always upon the transference from one student to another.

7. All clothing kept in lockers in gymnasium dressing rooms, or laboratories, must be kept in sanitary condition. Frequent inspection must be made by the officers of the department concerned.

8. A bacteriological examination of the water of swimming pools shall be made once each week, or as frequently as is deemed essential. The pools, when found to be unsafe, will not be open to students.

9. Lavatories and latrines shall be thoroughly cleansed daily and as often as is necessary. It shall be the duty of the voluntary health officer of each building to make frequent inspections of the toilet rooms and to insist that the janitor keep them in sanitary condition.

10. Specific sanitary regulations to meet the particular demands of certain buildings may be formulated and enforced by the director of the health service, the sanitary inspector, and the voluntary health officer.

11. The sanitary inspector shall cooperate with the superintendent of the buildings and grounds in keeping the grounds in the very best sanitary condition.

2. *Living conditions.*—Nothing can contribute more to the efficient control of the health of students than the provision of properly built,

properly equipped, and properly managed dormitories, dining rooms, and refectories, sufficient for all students. No doubt for most universities it would be inadvisable—perhaps out of the question—to require all students to live on the campus, especially in the case of students whose homes are nearby. However, such would be the ideal condition from the standpoint of efficient control of hygiene and sanitation.

Dormitories, erected with a view to affording the most hygienic living conditions in regard to heat, light, ventilation, furnishings, cleanliness, and drinking water, should be provided by every institution for all students not living at their homes. Where students live in such dormitories, all communicable diseases can be quickly controlled, and the closing of the institutions because of these diseases need never occur.

University owned and controlled dining rooms sufficient to accommodate all students in the university are most important. Wholesome, nourishing food is, of course, fundamentally essential to the health of the student. Everyone handling food should undergo a physical examination, including laboratory examination, and frequent inspection of the kitchen and dining rooms should be made. We are beginning to appreciate more than ever the value of proper nourishment in efficient mental and physical work.

Besides providing the student with wholesome and nourishing food, it would be well to teach him the amount and kinds of food essential, as measured in calories, vitamins, etc. Unquestionably, the so-called degenerative diseases, which statistics show are on the increase in the United States, are in a large measure due to ignorance of nutrition, and overeating. When a new automobile is purchased, the first chief concern of the owner is to determine the greatest number of miles that can be obtained from a gallon of gasoline. The amount of strength and energy to be derived therefrom should be an important matter in food ingestion. Certainly, if the importance of this matter were universally known and appreciated, high blood pressure, arteriosclerosis, chronic heart disturbances, Bright's disease, apoplexy, and other degenerative diseases would be decidedly diminished. Dining rooms on the campus, if operated under intelligent supervision, could do much in supplying this information. Each menu should give the caloric value of the foods served and succinct information relative to the kind and amount essential to proper nutrition. Let the university take the lead in this important matter by supplying the proper nutrition and teaching its relative values and needs.

We are not unmindful of the great rôle that dormitories and dining rooms play in the social life of the student. That these buildings solve many perplexing problems relative to the student's life in

general is obvious, and that they are of financial value has already been demonstrated in many institutions.

The establishment, then, of sufficient properly constructed dormitories and dining rooms wherein all foods and refreshments are prepared and served with scientific and sanitary care and according to the regulations laid down by the university health service is indispensable to the best living conditions. Under such conditions would not the gain in mental efficiency, physical well-being, and happiness of the students sufficiently compensate the State or other agencies for providing these facilities?

When students are compelled to live in rooms promiscuously provided by proprietors whose sole interest is the monthly rental the environment will often be unsatisfactory. The majority of students are compelled to live as cheaply as possible, and usually little attention is paid by the student to the sanitary conditions. Improper heating, insufficient ventilation, overcrowding, poor lighting, and uncleanness are the lamentable conditions existing in many rooming houses.

Likewise most dining rooms, lunch counters, and refectories are operated for gain, at the expense of proper service. The average student patronizes the cheaper ones. Too frequently the food is bad—spoiled or adulterated—or has not been prepared with a view to cleanliness. Typhoid and other germ carriers may serve the food and refreshments. Nutrition as a science is ignored.

With such adverse conditions it is no wonder that so much ill health exists among students and that outbreaks of communicable diseases occur frequently.

To correct these unfavorable conditions a sanitary survey should be made of the rooming and eating conditions of students, in so far as it is feasible. A sanitary inspector should inquire into and regulate, as far as possible, the conditions of heat, ventilation, lighting, cleanliness, equipment, and other things pertaining to the health of the students; and a report in each case should be kept on file at the office of the health service and at the housing bureau.

Particular conditions demand special regulations; but, in general, regulations similar to those given below should be adopted, to be met, as far as possible, by student rooming and boarding houses in order that they may be placed and kept on the approved list, the rating given each to depend upon the degree to which the requirements are met.

ROOMING HOUSE REGULATIONS.

1. *Heat.*—All study rooms should be heated to an even temperature of 68° or 70° when occupied. Pipes must carry fumes of gas stove, when used, out of the room. Effort should be made to maintain the necessary humidity.

2. *Ventilation.*—Provisions should be made for proper ventilation through sufficient windows and transoms. Rooms should have at least one window to outside.

3. *Light*.—Shaded table lights should be provided. Gas lights must be equipped with mantle and frosted globe.

4. *Cleanliness*.—Rooms should be cared for daily, and thoroughly cleaned at least once a week. Mattresses should be well aired at least once each week, and they should be thoroughly cleaned and sunned at least once each year and always upon change of tenants. Bathroom and fixtures should be kept in a neat and clean condition. Plumbing should be adequate.

5. *Equipment*.—A single bed for each student is recommended, and, if possible, one bed to each room unless sleeping porches are provided. Where two beds are in the same room, there should be at least 6 feet between them. All proprietors of rooming houses should be advised to supply single beds as soon as possible.

For each study room with two students the following equipment should be provided: One study table, two study and two easy chairs, dresser or chiffonier or both, closet or wardrobe for hanging clothes, mirror, carpet or rugs (preferably the latter), room thermometer, book shelf, and waste-paper basket. Provision should be made for storing trunks.

6. *Bathing facilities*.—Hot water should be furnished in lavatory daily, and for baths at least twice each week.

7. *Drinking water*.—Drinking water should be furnished from an approved source.

8. *Inspection*.—All rooms and houses used by fraternities, sororities, and clubs, and all student rooming and boarding houses should be open to the university health service for inspection and sanitary regulation.

9. *Complaints*.—Students should enter complaint to the health service when they feel that these regulations are not obeyed. The health service should immediately investigate with a view to enforcing the regulations.

INFORMATION RELATIVE TO RATING ROOMING HOUSES.

In the rating of rooms, a scale of 100 points might be used by the inspector and the following features should be taken into consideration:

Heat (20 points).—Study rooms should be heated by hot water, steam, or hot air systems. While occupied they should be kept at a temperature of 68° to 70° F.

Humidity (5 points).—The overdry atmosphere of rooms gives a sense of chilliness, owing to excessive evaporation of the moisture in the air, and favors irritation and infection of the respiratory mucous membrane. If a room at 68° is not warm enough for a healthy person, we may be sure that the air is too dry. Dr. E. P. Lyon found that during the heating season the evaporation of at least 15 buckets of water each 24 hours is required to supply the needed humidity for the ordinary house of 10,000 cubic feet capacity.

Water vapor can be increased to some extent by evaporating tanks in connection with hot-air systems, or by letting steam escape when a steam-heating system is used. Care must be taken, however, in the latter method, as it might prove harmful or even dangerous to the boiler. In individual rooms, water vapor can be increased to a certain degree by operating an electric fan placed over a vessel containing water, or by other devices, but none of these methods is ideal. Dr. Lyon's tests and results are of great value in this important matter. (See *Minnesota Medicine* V, December, 1918.)

Ventilation (15 points).—At least 1,000 cubic feet per occupant; direct outside air; cross ventilation; transoms; windows; window ventilators.

Lighting (15 points).—Direct outside light; window area at least 20 per cent of floor area; electric table lights shaded.

Cleanliness (15 points).—Cleanliness of rooms and halls; condition of bedding and mattress; small rugs; use of vacuum cleaner; washable curtains and draperies; general appearance of house and surroundings.

Furnishing (15 points).—Single beds; study table or desk; shaded electric table light; study chairs and easy chairs; adequate drawer and closet space.

Bathroom (10 points).—One bathroom for each five persons; plumbing; outside ventilation; cleanliness; hot water; same floor with bedrooms.

Building (5 points).—Upkeep; halls and stairways; fire protection—accessibility to exit, fire escape fourth floor and up—basement; exterior surroundings.

RULES FOR APPROVED BOARDING HOUSES.

1. All rooms where food is stored, prepared, or served to students must be kept thoroughly clean and screened against insects and animals.
2. No privy vault, open cesspool, hogpen, or chicken pen shall be permitted within 50 feet of any room used for storing, preparing, or serving food.
3. All garbage must be placed in covered sanitary receptacles and removed from premises at least three times a week.
4. All water used for cooking, washing dishes, or drinking must come from sources approved by the health service.
5. Dishes and cooking utensils must be kept in a clean and sanitary condition.
6. All persons preparing or serving food to students shall keep themselves in a neat and clean condition. Every facility must be maintained to assure the most rigid personal cleanliness.
7. All persons preparing or serving food to students shall obtain a certificate of health from the university health service.
8. The name of the dairy furnishing the milk used and served must be filed with the university health service.

ENFORCEMENT OF REGULATIONS.

(1) An inspection of rooming and boarding houses should be made by a representative of the university health service at least once each year or as often as is deemed necessary. These inspections should be made in conjunction with other agencies concerned.

(2) A list of the rooming and boarding houses approved by the university health service, together with ratings, should be on file at the university health service office and at the housing bureaus.

(3) All complaints by students respecting rooms and boarding houses should be followed up by immediate inspection on the part of the health service.

(4) The university health service should cooperate with the State board of health and the city health department in making the inspections and in enforcing the necessary regulations.

VOLUNTARY HEALTH OFFICERS FOR ROOMING AND BOARDING HOUSES.

The work of the health service may be very much facilitated by the appointment of voluntary health officers—one for each sorority, fraternity, dormitory, cooperative club, boarding house, and rooming house. This official may be the matron or any one interested, and may be appointed by the particular society concerned.

These officers should be made familiar with the regulations which concern them, and the closest cooperation should exist between them and the health service. Outbreaks which might lead to serious epidemics may be readily checked by intelligent and close vigilance on the part of these voluntary health officers.

III. Education.

Dr. Eugene Lyman Fiske, in his analysis of the Army examinations of the one-third who failed to pass the physical tests, concludes that 60 per cent of those rejected owe their physical impairments to either ignorance or neglect. Both go hand in hand, for neglect of bodily organs and functions is the invariable accompaniment of ignorance relative to the causes of morbid processes and their grave results.

Appreciative and impelling enlightenment in regard to all things pertaining to human physical welfare is the first principle of an efficient university health service. As in every other human-betterment activity, the most genuine and far-reaching results are to be obtained through education. Education of the masses is a slow process, but it is sure to win. The average student knows little and cares less for the laws of health, and this is but a reflection of the usual American attitude toward hygiene.

1. COURSES IN HYGIENE

No greater service can be rendered the college youth than requiring him to devote some time to the conscientious study of both personal and public hygiene. This is so universally accepted by academicians that it would be but useless repetition to present arguments in its behalf. That universities regard hygiene as an essential subject is demonstrated by a perusal of their catalogues. A criticism called forth by the average course in hygiene, however, is the half-heartedness or laxness with which it is conducted.

As a rule the courses given are in the nature of weekly lectures for perhaps one semester, for freshmen. Attendance is practically the only requirement for credit, and a freshman, as a rule, regards the course as a barricade which he must by some hook or crook surmount in order to receive the coveted degree. The class period is usually relegated to some late afternoon hour so that it will in no way interfere with the other courses. The classes are usually large, perhaps all freshmen boys in one section and girls in another, and the course is presented by overburdened and perhaps uninterested lecturers. No wonder then that hygiene has fallen into more or less ill repute and the teaching of it is too often regarded as comparatively unimportant. This is lamentably true notwithstanding that the knowledge which is concerned with laws of self-preservation is after all the first principle of education.

Hygiene should be placed on the same basis as other academic studies and should be required of all beginning students. At least five or six hours weekly for one semester or two quarters should be devoted to it, and credit toward degrees should be given for it. The course should be conducted as are other classes, by lectures, recitations,

assignments, demonstrations, experiments, and examinations. Numerous opportunities for concrete study of hygiene are afforded in the college or university environment, such as that offered by the sanitation of campus buildings and of students' lodging and boarding houses. Then there are various departments in the university which are more or less directly concerned with health matters, such as physiology; bacteriology and pathology; sanitary engineering—water supply and sewage disposal; and architecture—building construction, both private and public, with special reference to light, heat, humidity, ventilation, and plumbing. These departments should be utilized for concrete study whenever it can be done.

Hygiene, both personal and public, can be made one of the most interesting subjects in the college curriculum. Is it not true that people are fundamentally interested in health? It has been stated that matters relative to health and physical well-being make up the bulk of the laity's conversation. If this is true why not by education substitute facts for the world of harmful misstatements and prevalent superstition?

Hygiene should be made actively alive. It might well begin with the consideration of timely and interesting topics. For example, if influenza is rampant, begin with that subject. The vital statistics of the particular locality should guide in the introduction of the course in hygiene. In many localities, typhoid fever and tuberculosis, under normal conditions, are the chief destroyers of early manhood and womanhood—the period of college life. Therefore, in those localities particular consideration should be given to these infections, and the related infectious diseases may be studied in connection with them. Thus, season, latitude, prevailing diseases, epidemics, etc., may determine the introduction to a course in college hygiene.

The proportion and relative values of the various topics making up hygiene study may be largely determined by the agencies which are most likely to and do most frequently affect the health. For many reasons the course should start out with, and continual emphasis should be placed on, public health. As President Burton of the University of Minnesota has stated, "The college freshman is more or less fed up on personal hygiene." He has had an over-ingestion of it while at high school and still feels a sense of distention. Again, a student is decidedly socialistic during this period and is more interested in his relations to society than he is in his "innards."

In general, a course including facts of hygiene and sanitation, which it is vital that all citizens should know, may be outlined as follows:

Bacteria.—Along with a consideration of the prevailing infectious diseases, the subject of bacteria in general may be introduced—their nature, kinds, distribution, growth; pathogenic bacteria and how they gain entrance into the body; toxins and their effects. Interesting

concrete examples of pathogenic bacteria may be selected from the various infectious diseases. Naturally these studies lead to public hygiene-sanitation. Contamination of water, milk, and food; sewage disposal, etc., are problems of bacterial distribution. Air and other means of contaminations such as carriers, objects, hands, insects, etc., may likewise be considered. Thus the subject of communicable diseases in a general way may be introduced, reserving the more specific effects of contagious disease until the appropriate place for their study in connection with the physiological system is reached.

Man's defense against bacteria may be next introduced: bodily resistance and how maintained; methods of prevention—cleanliness and asepsis, avoidance of crowds, isolation, quarantine, vaccination, air, sunlight, chemicals, sterilization etc.

Respiratory system.—As the vast majority of the communicable diseases enter through the respiratory system, the study of this system may well be introduced here. After the essential consideration of the anatomy and functions of the nose, mouth, pharynx, larynx, and lungs, the respiratory infections should be considered. First and foremost, colds; causes and effects, and especially the effect in preparing "soil" for more serious infections; prevention, and here building construction in relation to ventilation, heating, and humidity may be dwelt upon. The subject of colds may be followed by a consideration of diseases spread by discharges from mouth and nose; i. e., chronic coughs, tuberculosis, influenza, pneumonia, diphtheria, septic sore throat, tonsillitis, scarlet fever, measles, mumps, whooping cough, cerebrospinal meningitis, etc. The methods of dissemination of these diseases and the means of preventing them should be duly emphasized.

Focal infections.—Teeth-root abscesses and pyorrhea, diseased tonsils, adenoids, infected sinuses, and their far-reaching effects in the causation of constitutional disorders such as endocarditis, arthritis—both acute and chronic—chorea, high blood pressure, lassitude and indisposition, and degenerative diseases, should be dealt with.

A general consideration of the care of the nose, mouth, and throat may now be made. From the above synopsis it will be seen that the subject of the respiratory system and its disorders is indeed lengthy. It is, nevertheless, a most important one. The relative importance of the various diseases should be the guide in presenting them.

Mental hygiene.—Of great importance is the subject of mental hygiene. The university represents an abrupt transition in the life of the student. New environment and conditions of living, new associations, and perplexing educational methods are more or less disturbing experiences to many students. They have difficulty in "finding themselves." Again, many students who come to the university have been started off early on the wrong track. The

twig is readily bent in divers ways, and many factors in the earlier life of a student may have brought about a more or less warped condition.

Many types of psychoses, neuroses, and other slight mental aberrations—border-land cases—have their exacerbations or inception during the earlier period of college life. Mental therapeutics—that which endeavors to “put the student right” with himself, his environments, and his activities—should be an important part of the work of genuine hygiene instruction.

Instructors in practically all courses offered in the university could do much to prevent these mental disturbances in students. In the introduction of a new subject, the devotion of a class period or two to a brief consideration of what is to be sought and how best to obtain it, is worth while. Our first step, when manual labor of any sort is to be done, is to figure out the maximum accomplishment to be obtained with the least expenditure of energy. This is recognized as efficiency. Why not apply the same method to mental endeavors? Far too many students in too many courses “butt their heads against a stone wall” in their compelled efforts to move or remove it. An enormous amount of physical and nervous energy is wasted. Would not a preliminary survey wherein the maximum accomplishment with a minimum expenditure of nervous and physical energy is discussed and demonstrated contribute to mental efficiency? It would certainly do much, not only toward minimizing psychoses but also toward stimulating interest. But this should not mean a sugar-coated educational process which would seriously affect what is vaguely termed “mental discipline.” Making a course “difficult,” however, is to be condemned. “Burning the midnight oil” as a routine intellectual endeavor for students should be relegated to the past.

Circulatory system.—This subject should include a survey of the anatomy and physiology of the blood organs—arteries, veins, capillaries; further emphasis should be laid on focal infections, i. e., rheumatic fever, endocarditis, etc., and their relations to the heart. The necessity of exercise and the dangers of overstrain should be duly considered. The etiological factors and the prevention of high blood pressure, arteriosclerosis, and cardio-nephritic degenerations should receive the proper emphasis. Emergencies, hemorrhages, and syncope should also be considered.

Excretory organs.—A study of the skin, the kidneys, etc., should be made.

Physical exercise.—The subject of physical exercise should include a study of the anatomy and physiology of the bones, joints, and muscles, and the physiology of muscular movement. Activity and

muscular exercise in the open air should be emphasized as among the chief measures for maintaining health and as important factors in preventive medicine. There should also be included the reconstruction and prevention of deformities—round shoulders, lateral curvature, humpback, knock-knees, weak and flat feet; the teaching of correct body posture and the development of the various parts and organs of the body; and the cultivation of poise and graceful, coordinate, efficient motion.

Organs of nutrition.—The essential survey of the gastrointestinal tract from teeth to colon, including the anatomy and physiology of the various gland appendages should be made. In presenting the anatomy and physiology of the organs and systems, care must be taken not to weary the student with too many details. The salient features of this branch of hygiene are: Care of mouth and teeth; mastication; essential food substances; amount of protein, carbohydrates, and fats essential as measured in calories; overingestion and its relation to degenerative diseases; regulation of meals and diet; proper cooking of foods; preservation of foods; adulteration of foods; drinking water; gastrointestinal disorders—dyspepsia, costiveness, diarrhea, etc. The diseases due to alvine discharges—cholera, dysentery, hookworm, and especially typhoid fever—should be given much attention and the public health phases emphasized. Also, a study should be made of the nutritional diseases—pellagra, scurvy, beriberi, and rickets.

Sex hygiene.—This important part of the study of hygiene may be presented early in the course, if deemed appropriate. Perhaps no subject pertaining to personal welfare has received more attention in recent years. Perhaps no subject has been more fatuously handled. At times one is almost constrained to feel that as much perversion has been manifested in its usual presentation as that toward which it is directed. The practice of engaging high-priced itinerant lecturers to come around once a year and present the subject to a large audience is to be condemned. An abnormal curiosity rather than a genuine helpful interest is fostered and this curiosity is the motive for attendance. Again, these meetings are arranged to serve the convenience of the lecturer. Necessarily, an abrupt, more or less sensational introduction to this all-important subject, where both modesty and time forbid a wholesome discussion, is the deplorable result.

For many reasons sex hygiene should be correlated with general hygiene instruction, and should be presented at the appropriate period by the regular instructor after he has become acquainted with his students and they have become acquainted with his sincerity and earnestness. It should include a brief consideration of genesis; anatomy, physiology, and care of sexual organs; social

diseases—in relation to the individual, to society, and their economic loss; heredity, and eugenics.

Clothing.—There should be considered the relation of clothing to health; the kinds of clothing; the need of proper clothing, both under and outer, in winter for conservation of heat and energy; warm-weather clothing, etc.

Cancer.—Cancer ranks with tuberculosis and pneumonia as a great causative factor in our national mortality. The subject, therefore, is of both profound personal and public interest. Its cause, so far as we know, and its prevention and early treatment should be given due consideration.

Domestic and public hygiene.—Study should be made of the location and construction of dwellings; provisions for light, heat, ventilation, and humidity; dust in air; water supply; plumbing; drainage; modern bathrooms and toilet rooms; garbage and refuse disposal; nuisances. These subdivisions may be extended to include certain municipal matters; water—sources, contamination, purification, and relation to disease; soil in its relation to disease; sewage and refuse disposal; school and other public buildings; industrial hygiene; communicable diseases not already considered, i. e., smallpox, chicken pox, etc., emphasizing them from the public standpoint with special reference to quarantine, isolation, disinfection, and immunity; patent medicines.

2. PUBLICATIONS.

The students' daily paper and other university publications may be utilized for the purpose of disseminating knowledge relative to both personal and public hygiene. The effects of daily succinct discussions on timely hygiene topics are far reaching.

3. EXHIBITS.

Every opportunity should be taken to set forth information relative to disease, patent medicines, etc., by means of exhibits, placards, drawings, and moving pictures, so that "he who runs may read." The waiting room at the health service and other convenient rooms should be made use of for placards.

There are practically no limits to the educational work of the health service.

PERSONNEL OF A UNIVERSITY HEALTH SERVICE.

The personnel of a university health service will vary greatly, of course, in different institutions.

Personal Division.

Director.—At the head of the university health service there should be a director—a man of splendid personality, wide vision, broad sympathies, and unusual training. He must appreciate fully the scope of his work and the relative values of the various activities under his supervision. As his chief aim is concerned with the maintenance of an active, healthy, vigorous, working student body, he must be familiar with both preventive and curative medicine. Further, he should understand the theories and practices now incorporated and taught in the department of physical education, for, and it will stand reiteration, proper daily physical exercise is one of the best preventives of disease in the student's life; and by properly directed exercise many physical defects can be ameliorated and in some cases entirely overcome.

Assisting the director there should be physicians, nurses, and a laboratory technician familiar with bacteriology and medical laboratory diagnosis.

Physicians.—The personnel of a university health service should include one or more physicians, depending on the size of the institution. Perhaps 1 physician for each 1,000 students would be a good allotment in general. Women physicians are desirable for women students, especially in making the physical examination and for reconstruction work.

The physicians employed should be especially qualified for their work. In addition to ample training in both preventive and curative medicine, they should be familiar with the theories and practices of physical education. Especially should they be acquainted with the various methods of physical reconstruction and the reclamation of subnormal students. The physician should become acquainted with the physical status of each student in his group. With such knowledge he can provide the proper measures for maintaining the health of the sound student and group his subnormals into various classes for which suitable exercise and care can be arranged. He should use the "follow up" system, and a complete physical record should be kept of the student throughout his academic career.

Thus it will be seen that the health service and physical education are interrelated. In fact these physicians may well be employed by both departments where these departments are separated.

Of course, where no medical school exists in connection with the institution, these physicians must necessarily keep daily hours at the hospital and dispensary where students may consult them. Where there is a medical school the treatment of ill students may well be taken care of in another way. This matter is discussed in

Miscellaneous Problems, under the heading, "Relation between medical school and students' health service."

Nurses.—The importance of a sufficient number of competent nurses in the health service can not be overemphasized. Nurses' activities are divided as follows: Hospital nursing; attendance in the dispensary; visiting outside sick students; inspecting rooming houses, etc. The number of nurses required for an effective health service varies with the size of the institution and the particular demands. At least two full-time nurses, one serving as superintendent, should be employed. Increase in the nursing staff should be made to meet the demands. In case of epidemics and during certain seasons extra ones are often needed.

Laboratory technician.—Finally, it is essential that someone well trained and skilled in laboratory technique and diagnosis be employed. The technician's activities are related chiefly to two branches of the service: the personal division, in the various laboratory examinations, and the division of sanitation. In fact the right type of individual with the necessary training may well direct the division of sanitation.

Division of Sanitation.

To carry on the activities as outlined, for the division of sanitation, the following should be appointed: A chief of the division of sanitation; inspectors of sanitation (one or more as the needs demand); voluntary health officers for campus buildings (see p. 2496); and voluntary health officers for sororities, fraternities, clubs, boarding houses and rooming houses (see p. 2501). As has been suggested, the work of the three divisions—personal, sanitation, and educational—overlap, and one properly trained individual may serve in several capacities, especially in the health services of small institutions. For example, the chief of the division of sanitation may serve as sanitary inspector and laboratory technician. A number of such combinations can be made with properly trained individuals.

Division of Education.

The course in hygiene may be conducted by practically any number of the staff of the health service. Special ones may be delegated for the particular parts of the educational work.

BUILDING AND EQUIPMENT.

For the successful administration of a university health service a suitable building, conveniently located, should be provided and used solely for the health service work. The three divisions are so interrelated in their activities that one distinctive building unit should house them all.

Adequate provision for the personal division requires:

- (1) A dispensary with a waiting room and examination and treatment rooms;

(2) A hospital for noncontagious cases (including nurses' quarters, unless these are otherwise arranged for);

(3) Adequately isolated quarters for contagious diseases (these quarters should be either in a well-isolated part of the building, or better, in a separate building, or in a wing connected with the main building by inclosed corridor);

(4) A well equipped laboratory which can be utilized in the work of both the personal division and division of sanitation;

(5) Necessary office space.

It has been the writer's experience that, for an efficient health service, provisions should be made for hospital facilities of at least 5 beds and a daily average of 20 dispensary visits for each 1,000 students enrolled. These figures are given as the minimum requirements. Of course the daily sick call and the number of patients are influenced by the seasons and the presence of epidemics. Consequently the hospital and dispensary equipment must be elastic. At times, as during the height of epidemics, every resource will be strained in order to care for all those afflicted.

The laboratory is of great importance. It makes possible the early detection of communicable diseases and provides a place for the routine analyses essential to thorough physical examinations. Preventive vaccinations for typhoid fever, pneumonia, smallpox, diphtheria, etc., may be given and autogenous vaccines prepared. Further, it is essential in the work of the sanitary division for the examination of drinking water, milk, water of swimming pools, etc.

A hospital, including an isolation hospital for the more serious communicable diseases, a dispensary, and a laboratory are absolutely indispensable to an efficient university health service.

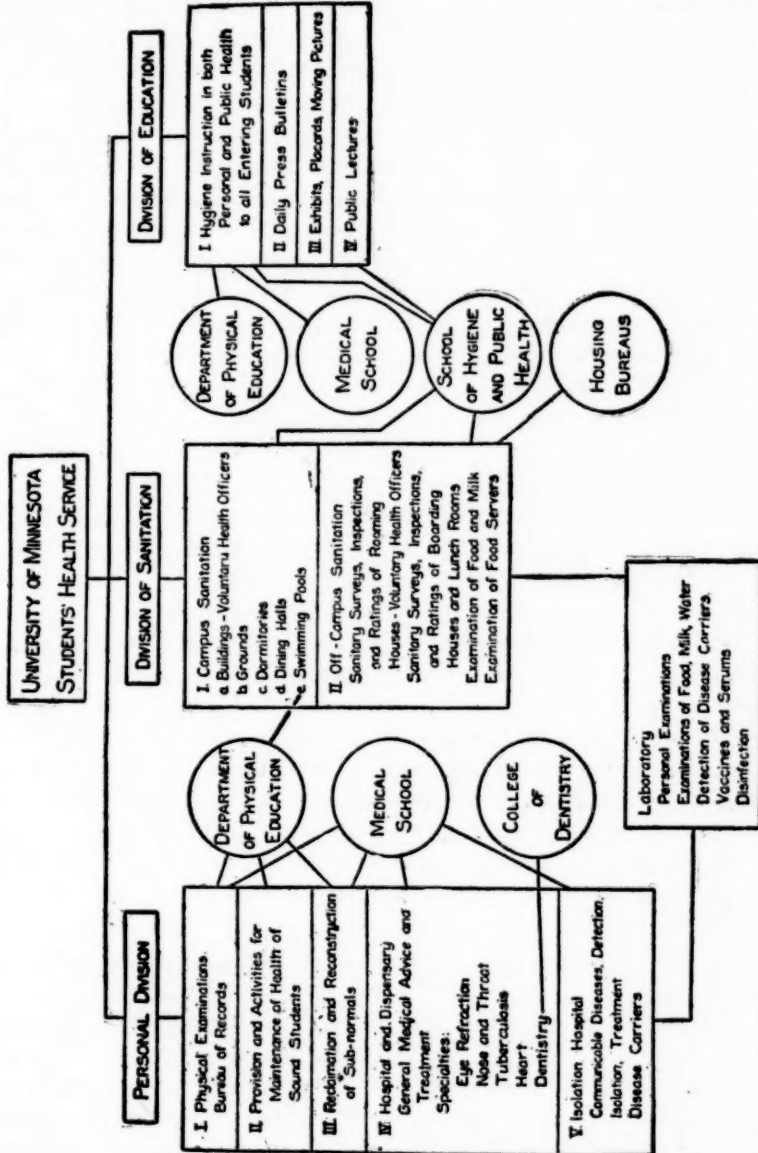
To initiate a health service, temporary buildings can, of course, be utilized until permanent accommodations are provided. One building could serve as a place for making physical examinations, for the early diagnosing and treating of minor illness among students, and for taking care of bed patients, when noncontagious. It could also serve as the health center of the university in which the administration of the divisions of sanitation and education is carried on. Another building could serve for isolation purposes.

MISCELLANEOUS PROBLEMS.

Many problems come up with the initiation, organization, and operation of a students' health service. A brief statement regarding some of the most important of these problems which have been repeatedly called to our attention may be of interest. For the smaller institutions perhaps the writer's previous discussions on this subject may be of some value.¹

¹ "The university health fee," *The Journal of the Kansas Medical Society*, October, 1915. "Organization and activities of a university health service," *School and Society*, Sept. 2, 1916.

Reference has already been made to the inextricable relationship between the health service and the department of physical education in the university. A close relationship should exist also between the health service and the schools of medicine, and of hygiene and



Plan of organization of the students' health service at the University of Minnesota. Circles show the relation of other departments to the health service.

public health, if these schools are maintained by the institution. The health service must also be in close touch with the housing bureau and with various student organizations.

1. *Relation between the health service and the department of physical education.*—To repeat, the university health service is as much

concerned with the physical welfare of the sound student as it is with the sick. It must be actively interested in the provisions for the maintenance of the health of all students. This makes a close relationship between the service and the department of physical education essential. A specially trained physician, devoting all his time to student health and physical education, should be employed. Not only should he be well trained in medicine but he should have an intimate knowledge of both the theory and practice of kinesiology, calisthenics, outdoor and indoor physical education. He should be familiar with reconstructive and corrective exercises. This physician is a most important member of a students' health service. He must become familiar with the physical records of all the students in his group. It is his concern to keep the sound student well, and to look out for the physical welfare and exercise of the subnormals. He is the teacher of hygiene to incoming students. His work constitutes a continuous "follow-up system," whereby one of the greatest objectives of students' health service is reached—that of helping the student to possess a better developed and a sounder physique at the conclusion of his college career than he had at the time of his entrance.

2. *Relation between medical school and students' health service.*—Let me again emphasize the fact that a university health service should not be regarded solely as a sickness insurance agency. The most serious mistake that many institutions have made in establishing health services is to regard them as contract practice procedures and to expend all income from health fees on facilities for medical treatment and for the employment of physicians who are concerned only with curative medicine. As a result, in these institutions, only a dispensary and hospital are provided and a practicing physician is engaged. This is not a university health service. Such an activity deals with perhaps not more than 5 per cent of the students. As has been stated before, a real health service should be as much interested in the 95 per cent who do not feel the necessity of consulting a physician as with the 5 per cent who do. It should be primarily interested in preventive medicine, and must be actively associated with all agencies in the university engaged in the physical welfare of students.

From a study of the aims and functions of a students' health service it can readily be seen that it can not well be made an integral part of a medical school, but should be a separate unit in the university. The larger functions of a health service are entirely independent of those of the medical school. The medical school would not wish to concern itself with these activities, nor could it be expected to do so. It would take up too much time and would interfere with medical instruction, which is primarily the teaching of diagnosis and treatment.

However, in the personal division of its activities, especially in the treatment of ill students, the health service should have the close cooperation of the medical school, if a medical school is maintained by the institution concerned. Here the medical school touches the health service in a most vital spot. The curative medical branch of a students' health service, while only a part of its work, is, nevertheless, an important and most costly one. The health service must give its ill students and those in need of treatment the most scientific advice and care; therefore the health service should have a close relationship with the school of medicine, if such a school is maintained. Certainly the clinical staff of the medical school should be available when expert or special treatment is needed. Likewise the closest affiliation might well exist between the nursing activities of the school and the service. Student nurses might well take a part of their training with the health service.

Thus for many reasons are the services of the medical staff highly desirable. The greatest value is in the excellence of the service, for the highest grade will thus be available. Again, if the health service is compelled to go elsewhere for its expert service, much of its income would be expended for curative medicine, and consequently its other far-reaching activities would have to be neglected or reduced.

It has been our experience that the clinical staff of the medical school is willing to cooperate in every way with the health service. The reasons for this willingness and interest are found in the desire to be of the greatest service to the university as a whole, and in that characteristic humanitarianism of the higher types of medical men, manifested by their desire to do all they can in behalf of human welfare.

In connection with this cooperation the question will come up, "Should treatment be confined to the dispensary and hospitals of the school of medicine?" There are several serious objections to this arrangement.

(a) The student does not want to mingle with the average dispensary patient. He is not and does not wish to feel that he is a charity patient. He has not the time to wait his turn in the almost endless row of ambulatory patients. He has paid a health fee and consequently feels entitled to service in a different environment from that provided for charity patients.

(b) Students can not be placed in wards along with the usual type of charity patients.

(c) When students are sent to the hospital of the medical school, rumors are sometimes started that they are to be used for clinical teaching. While such clinical teaching would in no way diminish the efficacy of treatment, but rather enhance it, nevertheless, rumors of this kind have been found to work materially against both the initiation and the activities of a health service.

(d) Again, students want all the privacy possible, and this should be given them. They do not want the medical students to treat them, because they are intimately associated with the medical students in so many activities.

(e) To send students to the medical school's dispensary and hospital would only diminish the teaching facilities, which are, after all, the primary objects of the work carried on in these buildings.

For the best results the dispensary and hospital facilities of the health service and medical school should be independent. When it comes to exceptional treatment, however, which requires special and costly apparatus for both diagnostic and therapeutic purposes, duplication of such equipment should be avoided.

The medical school should be compensated for this work. Of the various means of remuneration, the following plan should prove to be mutually beneficial:

Let the health service establish and maintain three graduate fellowships in the school of medicine—one in the department of medicine, one in surgery, and one in the eye, ear, nose, and throat department. These fellowships should be open to graduates of recognized medical schools who have had general internships and are specializing in these departments. The health service would need the services of each fellow not to exceed two hours per day; while the rest of his time could be devoted to his special department.

The advantage to the health service from such an arrangement would be that the personnel and facilities of these departments would be available for both special and expert treatment. In surgery, for example, the health service could feel assured that any surgical cases among students would receive the most scientific treatment, for the head of the department of surgery, through his graduate fellow, would be responsible for the surgical cases referred to him by the university health service.

The advantage of such an arrangement to each department would be that the department would have a graduate fellow concerned primarily in research. This always adds to the rank and dignity of a department and school, and, generally, clinical departments are in need of such research workers.

3. *Relation of the health service to the school of hygiene and public health.*—Where a school of hygiene and public health is maintained by the university, cooperation should exist between it and the health service. Practically the entire division of sanitation could be administered in connection with a school of hygiene and public health. Campus sanitation, including buildings, etc., and off-campus sanitation—sanitation in rooming and boarding houses—offer unlimited opportunities for practical public-health teaching. In other words, the division of sanitation may amply serve as a laboratory for instruction in hygiene and sanitation.

4. *Relation of health service to other university activities.*—In most universities there are many established agencies concerned with the welfare of the students. There is usually a dean of men and a dean of women who are concerned with the moral and social welfare of students. Then there are the housing bureau and the various organizations, such as the Y. M. C. A., Y. W. C. A., etc. The activities of the health service will in many instances parallel and even duplicate some of the activities of these other agencies. However, a students' health service covers such a large field that there is room for all who are interested in the work. When there is an apparent duplication or overlapping of interests, cooperation should be arranged.

5. *Relation to the medical profession.*—Naturally there are many students who, although they have paid the health fee, prefer, when ill, the services of their family physician or a physician of their own choice. The facilities of both the hospital and dispensary should be open to reputable physicians. They should be made to feel that the health service is anxious to cooperate with them in providing the best treatment for the students. When the outside physician learns of the excellent facilities offered by the health service for treatment, he desires the closest cooperation with that service.

Physicians located in the same city as the university sometimes criticise and offer objections to the establishment of a health service. Especially is this true where the locality is small. On the face of it, these physicians regard a health service as being solely concerned with contract practice and as a consequence feel that they will be deprived of some practice.

No genuine physician will object when the real purpose of a health service is understood. Again, the fact of the matter is that his practice is not decreased but on the other hand increased. Probably not more than 5 per cent of students ordinarily consult the medical profession. The physician is called as a rule only in case of serious illness. The university health service will deal with 100 per cent of the students and, as a consequence of its many activities, students will be impressed with the importance of preventive measures for maintaining positive health. Naturally, physicians will be consulted more than ever. This statement has been vouched for by the medical profession of at least one locality in which a university health service was established.

Cooperation and not competition is the desired relationship of the health service to the medical profession.

6. *Sectarian contravention.*—The opposition of Christian Science and perhaps other denominations and sects—religious or otherwise—to the tenets and practices of modern scientific medicine must be squarely met. If the health activities are confined solely to dispensary and hospital curative treatment, naturally objections will be

made by these cults to the requirement of health fees and the initiation of health services. However, when the scope and activities of a genuine students' health service are explained to objectors of this class, little opposition is encountered. Assuredly no one can object when it is understood that treatment of ill students is only an incident in the activities of a true health service and that the university is primarily concerned with positive health. By providing for the physical welfare and proper development of the students, by protecting them from the numerous communicable diseases that annually creep into the university, by stimulating them to aspire and labor for healthy, active, and harmoniously developed bodies, all students in the university are served. Treatment of ill or subnormal students in general, and special isolation and treatment of communicable diseases, become necessary in order that the vigorous may be protected and the academic efficiency of the university increased.

7. *Required health fee.*—An obligatory health fee is as essential for the maintenance of genuine health service as are taxes for the support of municipal or State health activities. These activities can not exist on voluntary contributions. Under no circumstances should exceptions be made to the payment of this fee. To make exceptions will undermine the entire fabric of health conservation and the health service will collapse. Some ground for exception might be held were the university engaged solely in contract practice. When objectors are made aware of the true functions of a genuine students' health service, their objections are usually overcome.

The writer feels that it is the best policy not to overemphasize the term "health fee." It is preferable to include it with the other essential fees required of students under the term "general fees," then make the proper apportionment. Not that it is best to be in any way clandestine, but, rather, it is best not to emphasize this particular fee which is so essential to the welfare of a university and its students, and which is so much misinterpreted and misunderstood. Similar objections might be raised by many to other required fees, were the fees particularly pointed out and overemphasized.

8. *Extent of individual service.*—Just how much service should be given an individual student is a problem difficult to solve. In reading the rules and regulations of health services in different institutions one observes many variations. Some institutions stipulate two weeks of hospital care as the maximum free service. Others require students to pay extra for outside calls. Of course the amount of the health fee required and the availableness of special and expert medical attention are important factors in determining this question.

In initiating a health service it is not wise to define the limits of individual service. Few chronic cases are to be found among students and it is rather a rare exception for a student to remain in the

hospital for more than two weeks. It is well when possible, in my opinion, to proceed on the theory that every service needed by an individual student will be rendered. Where close affiliation exists with a medical school, this service can be readily given.

The stipulation then of a maximum of individual service must be determined by experience, and it is a problem that must be solved locally. I feel, however, that it is only just to require the payment of hospital fees. A student must pay for his board and laundry outside of the hospital; so why should he not pay for them when he is in it? Individual exceptions may be made where a student is entirely dependent upon his own resources. It is only equitable, as I view it, that the hospital receive this remuneration while the student is "boarding" with the hospital. A hospital fee of \$1 a day for occupants would certainly be both moderate and just. In the course of a year the items of food, laundry, etc., for hospital patients, become very important ones, and they should be met as nearly as possible by hospital fees. It is only just to that large number of students who never enter the hospital; for the amount saved by charging such a hospital fee can be utilized for health activities which concern the sound student as well.

9. *Relation of health service to general academic efficiency.*—The health service is of incalculable value in contributing to the general academic efficiency in the university. For example, a vast majority of the daily absences are reported as due to illness. Sickness is a relative term, and is the most available excuse for our delinquencies. Suppose a system of reporting of absences is devised by which the health service sends one of its representatives to the sick absentee. This would not only aid in prompt attention to all ill students and in the early detection of communicable diseases, but if such an arrangement existed, the "sick" absent list would be materially decreased.

SUMMARY.

1. *Aims.*—The university health service endeavors to be a most potent factor in reducing to the very minimum that large annual academic and economic loss which is due to the indisposition and illness of students. Further, its aim is to help each student entering the university to possess a healthy, vigorous, active, and harmoniously developed body. The university health service stands for Positive Health.

2. *Activities.*—There are three main divisions to its activities: (a) Personal attention, (b) Sanitation, and (c) Education.

(a) The Personal Division is concerned with the physical examination of all students. Complete physical records should be kept. From each record can be determined, in a large measure, just what procedure is necessary to keep the student in the best physical con-

dition during his academic life. The following are some of the branches of the work in the personal division:

(i) Provisions for maintaining the health of the normal, healthy student by means of proper exercises, etc.;

(ii) Protection of the physically sound student from communicable diseases that are constantly creeping into the university, by the early detection and isolation of all cases of communicable disease—tuberculosis, typhoid fever, smallpox, scarlet fever, mumps, measles, etc.;

(iii) Provisions for the care and treatment of all such cases of communicable diseases;

(iv) Reconstruction—Reclamation: Correction of defects, advice and treatment to all subnormals;

(v) Advice to and treatment of all ill students.

(b) Division of Sanitation: The students' environment must be made as hygienic as possible; hence this division concerns itself with the sanitary conditions affecting the student both on and off the campus.

(c) Education: Finally, every student in the university must be made familiar with the elements of personal and public hygiene. Education in these important matters is carried on by means of courses in these subjects, daily bulletins, exhibits, and lectures.

RURAL HYGIENE.¹

By L. L. LUMSDEN, Surgeon, United States Public Health Service.

Here, so near the corner of Forty-second and Broadway, in the heart of this great Metropolis, it may seem at first thought somewhat incongruous to take up for consideration the subject of Rural Hygiene. I thought of this apparent incongruity while at breakfast this morning. I had for breakfast some grapefruit, some eggs, some buttered toast, and some coffee. It occurred to me that the grapefruit came from a rural district in Florida; the eggs from a rural district in Virginia or Maryland; the wheat from which the toast was made from a rural district in North Dakota; the cream used in the coffee from a rural district up State in New York or in Pennsylvania; the butter on the toast from a rural district in Illinois or Wisconsin; and the coffee from a rural district in Brazil. And I came to realize that several million other persons as well as I, breakfasting in the City of New York this morning, were in close contact with the conditions in the rural districts.

¹ Lecture delivered May 22, 1919, at the Academy of Medicine Building in New York City, in opening the conference on "Rural Hygiene." This conference was held with the School of Training in Public Health Administration conducted by the Public Health Committee of the New York Academy of Medicine, in cooperation with the New York Bureau of Municipal Research and Training School for Public Service.

Under modern facilities of transportation and travel, the bonds of union are many between the residents of our cities and those of our rural districts. The sanitary condition of the rural district reacts upon the health of the city, and the sanitary condition of the city reacts upon the health of the rural district. Therefore no sharp line of demarcation should be drawn between urban hygiene and rural hygiene. Between the fields of work for the conservation and the advancement of the health of our Nation there should be no twilight zones. A reasonable degree of coordination of the forces engaged in this important work is highly indicated.

Definition of Hygiene.

In taking up a subject for discussion it is important, I think, for us to know definitely just what the subject is. The terms "Hygiene" and "Sanitation" are frequently used interchangeably. There is between the two, however, a shade of difference in meaning. An individual who would accept with appreciation suggestions about the "hygiene of the mouth" might resent suggestions about the "sanitation of the mouth." As a rule we apply the term "sanitation" to work which involves the removal of grosser quantities of dirt than are dealt with in the work of hygiene. At a recent meeting of health officers a working up-to-date definition of sanitation was called for. The definition submitted was, "Sanitation is the common-sense application of the principles of cleanliness." I like that definition particularly, because it has common sense in it. Work for the prevention of human sickness and for the saving of human life is so appealing to the intelligent mind awakened to its possibilities that those engaged in it are apt at times to get too far off the ground and fail to proceed in a practical common-sense manner. Several weeks after the formulation of this definition of sanitation I was discussing the subject with a little school girl and obtained from her the best definition of sanitation I have ever heard. It was, "Sanitation means getting things clean and keeping them clean."

In formulating definitions it is difficult to find a stopping place. In having obtained a good definition of sanitation the question immediately arising is: What is cleanliness? Cleanliness is freedom from dirt; dirt is matter out of place. Dirt may be classified as harmless and dangerous. Soil from the top of a hill on which there have recently been no animals, finding its way into the mouth of a person would be dirt; but unless eaten in considerable quantities would do no harm, and thus furnishes an example of harmless dirt. The dangerous dirt with which we are most likely to come into contact in the course of our daily lives is the waste matter from the bodies of human beings. Such dirt is dangerous, because the agents which cause communicable disease in persons live, develop, and multiply in

human juices and tissues, and from the body of the infected person they escape from time to time through the secretions or excretions, or the bites of insects, and find their way under conditions favorable to them to the bodies of other persons.

Eruption of Disease.

In each of the communicable diseases there is what may be termed "the eruption of the disease." Such eruption may be regarded as a warning furnished by nature, because the erupted matter, constituting dangerous dirt, contains the infection which, under unhygienic conditions, may be communicated from person to person. In smallpox the eruption is in the skin and mucous membranes, and a case of smallpox in a person indicates that into the skin or mucous membranes of that person there has been introduced some of the erupted smallpox matter from the body of another person. In diphtheria, scarlet fever, "catching" colds, influenza, mumps, measles, and probably in poliomyelitis, the eruption is in the nose and throat, and a case of any of these diseases in a person indicates that into the nose or throat of that person there has been introduced some of the erupted matter from the nose or throat of some other person. In the most common type of tuberculosis and in the pneumonias the eruption is in the lungs; and these diseases exact their fearful annual toll of human life because the erupted matter from the lungs of the affected persons is spread about in such manner as to reach the lungs of other persons. In malaria the eruption is in the blood, and the erupted matter is taken from the blood of the infected person by mosquitoes of the genus *Anopheles* and by them conveyed to the blood of other persons. In typhoid fever the eruption is in the intestines and kidneys. A case of typhoid fever in a person is conclusive evidence that that person has eaten or drunk excreta from the body of another person. In the dysenteries, Asiatic cholera, and hookworm disease the eruption is in the intestines. The continued prevalence of the diseases caused by excreta-borne infections shows a woeful lack of observance of the most elementary sanitary measures which are inseparable from the decent fundamental principles of human existence.

The first reference I know of to the eruptions of disease as a basis for sanitary procedure was made by William Budd in his book on typhoid fever. In that book the author suggests an analogy between the intestinal eruption of typhoid fever and the skin eruption of smallpox as a manifestation of disease and as an indication of the source of infection. William Budd, a country doctor practicing medicine in England, became, through the exercise of his remarkable talents for accurate observation and logical deduction, one of the several great pioneer epidemiologists of the world. About the middle of the nineteenth century he wrote a series of papers on

his neighborhood studies of typhoid fever. In these papers he combated in a most convincing manner Murchinson's pythogenic theory of typhoid fever. Budd logically concluded from his observations that the matter from the infected intestines is much more dangerous immediately after its discharge than it is after it has undergone prolonged fermentative changes. He deduced with remarkable skill the nature of the typhoid bacillus years before the discovery of this organism. His complete monograph on typhoid fever was published in 1873. Since that publication, which I regard as one of the most excellent productions in medical or any other literature, but little has been added to Budd's contribution to our practical knowledge of the modes of spread and of the principles of sanitation for the prevention of typhoid fever.

Principles of Hygiene.

One of the main principles of hygiene is to bring about a consistent common-sense observance by individuals and communities of cleanly methods of living to prevent the erupted matter from the bodies of infected persons from being conveyed to and becoming "dangerous dirt" in the bodies of other persons. Another important matter is the establishment and maintenance of conditions in respect to air, water, food, exercise, and sleep, which tend to fortify individuals with vigorous health and the power to overcome invasion of the body by "dangerous dirt."

Hygienic measures may be classified variously as personal and community, rural and urban, etc., but the fundamental principles involved in all of the varieties are the same. Much may be done by the individual or the family for personal protection against hygienic omissions or unhygienic commissions of the community. Thus, individual or home protection against a dangerously polluted water supply or a dangerously contaminated milk supply may be secured by boiling the water and pasteurizing the milk in the home. Screening of the dwelling to eliminate flies and mosquitoes loaded with dangerous dirt is, in our average community, an individual or home hygienic measure of importance. Community hygienic measures, especially in densely populated sections, such as cities and towns, are as a rule more effective than are those that depend for their enforcement upon individual education, desire, and action. Thus if a clean public water supply is the only water supply available, the individuals in a community have to drink clean water whether or not they see any sense in so doing. Furthermore, sanitary protection as a rule may be obtained more economically by concerted community action than by independent individual action. Therefore, the health officer in his program of health work should

do all possible to bring about the establishment and maintenance of public hygienic measures.

No sharp line of demarcation can be drawn between rural and urban hygiene; the principles are practically identical. It is conceivable that the nomadic tribes were comparatively free from communicable disease. They did not remove their filth, but they removed themselves from their filth. The rural district has the advantage of dilution of population as an important factor in preventing the spread of communicable disease; the urban district has the advantage of economic procedure in carrying out mass sanitary measures, such as the installation of a clean public water supply or of an effective and complete sewerage system.

Need of Hygienic Advancement.

The need of intelligent businesslike attention, by both the individual citizens and the communities of the United States, to practical hygienic measures is all too obvious from even very casual observation. In our remarkable period of progress along many important lines in the last quarter of a century the hygienic advancement of our larger cities has been quite gratifying, but the hygienic progress in our smaller cities, towns, and rural districts has been remarkably lacking. In passing through the average small town or rural district in the United States a casual glance from a train window will reveal insanitary conditions which should be shocking to the average person in this day of so-called enlightenment.

A commonly expressed opinion is that the farm is an especially healthful place of human abode. Such opinion prevails with us because of the many obvious natural advantages for healthfulness presented by our average American farm. It has been found, however, that due to neglect of simple, common-sense, inexpensive, and very elementary sanitary measures, the persons living on our farms generally are exposed to conditions which seriously menace their health.

Certain diseases which are caused by infections spread from person to person are, notwithstanding the sparser population, much more prevalent in our rural sections than in our cities. Hookworm disease and malaria are now almost entirely of rural origin. In many sections of our country typhoid fever and dysentery are more prevalent in the rural districts than in the cities. Tuberculosis is appallingly common in our average farming community. These diseases incapacitate persons for useful, profitable labor. They take the joy out of living; they cause untold human suffering and much premature death. And they are preventable!

It is readily within the means of the average American farmer to carry out at his home reasonable sanitary measures for the protection

of himself and his family against the most common filth-borne communicable diseases. The cost of such measures in labor or money is much less than is the cost of their neglect. Our national economic loss, falling especially upon our farming population, from three of the most readily preventable diseases—typhoid fever, hookworm disease, and malaria—is estimated to be more than a billion dollars a year. In this time, of all times, we can not afford such waste.

In the course of sanitary surveys conducted by the United States Public Health Service in 1914, 1915, and 1916, it was found that of over 50,000 typical farm homes distributed over a wide range of our rural districts, only 1.22 per cent were provided with sanitary toilets—and at some which were properly equipped, the equipment was not used by all members of the household; at 68 per cent of these homes the water supply used for drinking and cooking purposes was obviously exposed to contamination from privy contents or from promiscuous deposits of human filth, and often also to pollution from stable yards and pigsties; and at only 32.88 per cent were the dwellings during the summer season effectively screened to prevent flies (having free access to near-by deposits of human and other filth) from entering dining rooms and kitchens and contaminating the foods for human consumption exposed therein. In numerous instances a pond of water of no use and which could have been drained away in an hour by one man, was found near the dwelling, providing a place for the breeding of the mosquitoes which play such an important rôle in the serious annual occurrence of malaria in the household. Cases of tuberculosis of the lungs (consumption) were found in persons who were staying day and night in poorly ventilated rooms, subsisting largely on "store food" and partaking liberally of some expensive patent medicine advertised as a "consumption cure," and gradually dying because they were not using the effective and abundantly available farm "medicines"—fresh milk, fresh eggs, and fresh air. The striking and highly encouraging finding was that the people in our rural communities, though generally uninformed or misinformed about the salient facts of home sanitation, were willing and anxious to learn them; and having learned the facts they would in a large proportion of instances apply them practically.

In the physical examination of our young men drafted from all parts of the United States into our military establishment a startling proportion of seriously incapacitating defectiveness was found. Over 30 per cent presented physical defects of sufficient degree to make the men unfit for arduous military service, and a large proportion of the physical inefficiency among the men was the result of preventable diseases and easily correctible conditions. Flat foot—resulting from faulty foot gear, lack of proper physical exercises, and faulty posture—was conspicuous among the causes for rejection. A large pro-

portion of the flat foot was preventable and should have been prevented by common-sense hygienic measures taken when these men were in their early childhood at home and school. Tuberculosis and the after effects of measles, scarlet fever, typhoid fever, malaria, and hookworm disease, all of which were in large part preventable, were also conspicuous among the causes for rejection. The cross section of our health conditions, furnished by the physical examination of the draftees, presents evidence which should be convincing to even the most obtuse that we—and by “we” I mean the individual, the community, and the local, State, and National Governments—have seriously and fearfully neglected the most important factor in our national development—our human power. We should profit from this lesson of the war. Upon the businesslike attention which, in the future, we devote to our public health, depends largely our opportunity to develop a nation capable of meeting the crises of both war and peace, and of demonstrating to the other nations of the world the value of democracy.

Importance of Rural Hygiene to the National Health.

Over 50 per cent of the population of the United States is rural. Therefore, what affects directly and importantly the residents of our rural districts affects vitally the strength of our Nation. The reference to my breakfast of this morning illustrates the close and important connection between the residents of our urban centers and the sanitary conditions of our rural districts. Thousands of city residents visit the country every day for business or social reasons. The vast bulk of milk and other fresh foods supplied to our large cities are brought in from farm homes. Most of the cities obtain their water supplies from open streams or lakes which receive drainage from extensive rural territories. Through any of these media—persons, food, or water—and also by flies and mosquitoes, infection spread from insanitary rural premises may be conveyed to persons residing in the city. Thus the sanitation of the rural districts has a direct and important bearing on the health of the whole Nation.

Under existing conditions infection is frequently conveyed from the rural districts of one State to communities in other States. From a case of scarlet fever or diphtheria now existing in central Maine, infection may be conveyed to, and cause an outbreak within the next two weeks in, a community in Florida or California. Mosquitoes carrying malaria infection and flies carrying typhoid infection will cross a State line as easily as they will cross a county fence or a line fence between two farms. The average large American city obtains its supply of milk, green vegetables, and fruits from as many as five or six different States. Any of these foods may be

the vehicle of infection. Insanitary conditions at farm homes in one State often are responsible for the contamination of milk or other foods with the seeds of infection which cause extensive outbreaks of disease in cities, towns, villages, and neighborhoods in other States. Many of our cities and towns obtain their water supply from streams or lakes which are polluted with the drainage from rural districts in two or more States. Persons carrying infection in their bodies often travel from one State to others, and with the usual toilet arrangements found on our interstate railway trains may scatter infection along the tracks over which they travel. In view of these facts it is clear that insanitary conditions in the rural districts of one State are, through commerce and otherwise, a menace to contiguous States especially; and, on account of modern transportation facilities, a menace to the whole country. Having such an important bearing on the character of farm products shipped from one State to others, and having such an important bearing on the ability of our whole Nation to raise and maintain armies for the common defense, the problem of rural sanitation appears to be one with which the National Government under constitutional authority may deal, and one with which the National Government from a standpoint of general welfare should deal.

The correction of insanitary conditions at a given home is of most importance to the persons who live in that home; the correction of insanitary conditions in a given community is of most importance to the members of that community; the correction of insanitary conditions in a given State is of most importance to the residents of that State. Therefore it appears logical for those who are most directly affected by and who are most largely responsible for local insanitary conditions to bear the greater part of the burden incident to the carrying out of measures for the correction of these local insanitary conditions. As has been explained, however, insanitary conditions in one locality may be responsible for disease and death among persons in distant localities, and for that reason the correction of insanitary conditions in one locality in a State is of importance to that whole State and to the whole United States. Since the problem of rural sanitation is both intrastate and interstate in character, it appears to be one which should be attacked by the coordinated efforts of county, State, and National health authorities.

In the areas around our National cantonments during the active period of the war, an excellent demonstration was made of coordination and augmentation of the efforts of National, State, and local forces for the improvement of both rural and urban health conditions. The results generally were very striking and furnished one of the good lessons of the war. This coordination and augmentation of health activities was brought about under the stimulus of war-time

needs. When our people generally begin to realize—as eventually they must—what the lack of adequate public health work means to the strength of our Nation, it is reasonable to expect that the stimulus of peace time will become sufficient to bring about such augmentation and coordination.

Sequence and Other Problems.

Health work, even when including in scope only a small community, presents so many branches, any one of which promises beneficial results, that it is difficult for one engaged in it to determine the best sequence in which to take up the different branches and how much effort to give to each one. Health business is like every other business in that it will not run itself. A banking or mercantile business without intelligent management will fail. Without a head, or an organization, to manage it intelligently, a health business will inevitably fail. There is no business in which it is more important to have formulated a good, general plan of operation, and to have exercised a constant, careful attention to details. The part-time health officer and the satisfaction of so many of our communities with part-time seriously inadequate health service, are among our worst misfortunes. If there is any business which needs whole-mindedness and whole-heartedness and all the time and effort which one can give, it is the public health business. One good whole-time health officer is worth more than twenty part-time health officers who might be good health officers if they gave all their time to health work. It is a big, absorbing, and vitally important business. No one is able to look after the details of public health business successfully while devoting a considerable part of his time and energies to some other business. Whole-time health organizations are essential to success.

The personal equation is all important. A health officer with a training in medicine, engineering, bacteriology, or chemistry, has certain specific advantages over one who has not such training. As an important division of health work in all instances is the bedside control of communicable infection, some training in medicine, giving a knowledge of the psychology of the sick room, is particularly advantageous. A collegiate degree with long, intensive training in one of these general sciences does not appear essential. A health officer with highly specialized training for one branch of health work, or with a hobby, may give a lopsided administration. He is the community health doctor and he needs to be a good general practitioner. One of the best city health officers I ever saw in action was, previous to his incumbency as health officer, a veterinary. A general knowledge of the principles and details of public health procedure is, of course, necessary; but tact, "punch," faith, enthusiasm, and, above

all, common sense, are absolutely essential to the successful administration of the business of public health. The head of a health organization has cause frequently to realize that he must "hold on when there is nothing in him except the will which says to him 'hold on.'"

A clear perspective of the business is important. Preliminary to the beginning of general activities some study should be made of the general health conditions of the community in which the work is to be done, in order that a comprehensive constructive plan of procedure may be formulated. The extent of work which may be carried out within the limits of the available resources should be carefully considered, and business-like attention should be given to the investment of every dollar in the health fund and every unit of strength of the health force in order to secure convincingly obvious big dividends on the investment. The continuation of the organization after the first year of operation may depend on the accomplishment of definite results in which the citizens generally of the community happen to be particularly interested. As a public servant, the health officer should consider carefully the existing demands of his people, and should endeavor to create among his people intelligent demands for the most logical health advancement. If, for example, in a community in which malaria or typhoid fever was appallingly prevalent and the people generally were keenly interested in having the prevalence reduced, the local health organization should devote all of its activities to preventing the spread of tuberculosis infection, and at the end of the year be unable to show by the records a reduction in the tuberculosis death rate, it could be understood why the citizens of that community would begin to wonder if their investment for health work was a good one.

Do not construe any of the foregoing to mean that the health officer must be an adroit politician. It is difficult and perhaps inadvisable under democratic government to keep anything of community importance out of politics. The health officer should strive to become good politics instead of becoming a good politician. If successful, his program of work will be advocated and supported by politicians and office seekers and even by statesmen. In health business, as in any other big business, a certain amount of bookkeeping is necessary. Every possible effort should be made to obtain promptly reports of births, deaths, and cases of illness. The statistics should be kept up to date and should be published in intelligible, attractive form, so as to get the attention and interest of the people. The real test of health work is the results in improved general health tone of the community and in lowered sickness and death rates. If such results be obtained, they should be advertised so that the people investing for health work will be enabled to understand that they are getting from their investment a good dividend.

As health business applies to all the people it appears logical for it to be conducted essentially as governmental business. The establishment and maintenance of reasonably adequate governmental—local, State and national—health organizations to function in a common-sense businesslike way in every community in the United States is so logical, in fact, that its realization eventually may be expected. If functioning as a governmental agency, the health organization is supported by funds obtained (presumably, at least) by equitable taxation of the people, and is in a position to operate with and through other official governmental agencies in the enforcement of law. Civic and philanthropic organizations upon entering the very appealing field of public-health work should function so far as may be possible with and through the existing official (governmental) health organizations. If the local official health organization should be wanting, or so inadequate as to make functioning with it difficult or impossible, the civic or philanthropic organization should make its main object in the public-health field the establishment of a reasonably adequate permanent official health organization and conduct its branch of health work with that object in view. If two or more agencies undertake independently to conduct the same public business in the same community, waste of money, loss of motion, friction, confusion, and injury to the general cause are almost sure to result.

A frequent mistake of health departments is to obtain the enactment of health laws which are not backed by sufficient popular sentiment and for the enforcement of which adequate health department machinery is not provided. Health laws should be preceded by popular sentiment. To have laws and not to enforce them is a serious matter in a democracy. The arousing of the right sort of popular sentiment by educational work is the most important single function of the health organization.

It is advantageous for the health organization to adopt a constructive plan of work. The plan, of course, must be sufficiently elastic to be adjustable to unusual emergency conditions. Among the general measures to be considered for adoption in the plan of health work for the average community are (1) quarantine and beside instructions to prevent the spread of dangerous communicable infections; (2) instructions in prenatal care and in the hygiene of infants of preschool age; (3) hygiene of schools and of other public buildings, and physical examination and physical training of school children; (4) control of soil pollution; (5) control of insects likely to convey infection; (6) safeguarding water and food supplies and giving instructions on the principles of dietetics; (7) life-extension work; (8) organization of local clubs for instruction and training in physical development and general hygiene; (9) antituberculosis work directed especially toward the discovery and the encouragement of

proper self-treatment of cases of incipient and early-stage tuberculosis; and (10) educational work, through lectures, printed articles, moving pictures, and other available agencies, concentrated from time to time on different specific subjects, etc.

The field is large. Some health organizations fail because they undertake to carry out too many branches of health work at the same time. Their efforts are too diffused and the results are not sufficiently obvious to carry popular conviction. Concentration on one branch or two or three closely related branches for a set period of time is usually advisable. The sequence in which the different branches of work are concentrated upon is very important. A sequence which would be good in one community might be absurd in another community. The launching of an energetic campaign for the improvement of dietetic conditions, or for the control of mosquitoes, though needed in a community in which pellagra and malaria prevail, would be out of order while that community was suffering from a rapidly spreading, overwhelming epidemic of influenza. A plan of health work for a community of 20,000 to be carried out by a one-man health organization necessarily has to be different from one that is to be carried out by an organization consisting, for instance, of a whole-time health officer, two health nurses, and two sanitary inspectors.

For the successful conduct of health business the health officer must cut his garment according to his cloth. He should take inventory of his stock. He should consider when and where the different lines of his stock are needed and will be used to the most advantage. In short, he should use common sense and proceed in a business-like way with the vitally important business which he has at hand.

The United States Public Health Service Plan of Rural Health Work.

From year to year in the annual conference of State health officers with the Public Health Service the reports from the different States indicated progress in urban hygiene, but little or no progress in rural hygiene. In the conference of 1910 the large majority of opinion—in fact, an apparently unanimous one—expressed by the practical experienced State health officers present, was that the outlook for considerable hygienic progress in our rural districts within a generation was about hopeless and that the only chance for advancement in this important field was offered by the teaching of hygiene in the public schools. It was thought that the school children with instructions in hygiene might, upon becoming grown-up, apply their hygienic knowledge, but there was no optimism about the teaching of old farmers new hygienic tricks.

I visualized the situation in the public school which I attended when I was a boy. The school building was a one-room log house with one door and two small windows. In winter the windows and the door were kept tightly closed and the room was heated with a large wood-burning stove located near the center of the room. Expectoration on the floor and on the hot stove was one of the frequently engaged in indoor amusements. The teacher, as a rule, was a girl from 18 to 25 years of age, and had "completed" her education in this school a year or so before. Her salary was \$25 a month. The water supply of the school was served from an open pail with one common tin dipper, which, when not in use, was left in the pail of water. The water was obtained either from an unprotected spring located below a soil-polluted wooded drainage area or from an open dug well exposed constantly to gross pollution from a near-by pigsty or an open privy at a neighboring home. No school toilets were provided. In responding to the calls of nature the teacher, the boys, and the girls had recourse to such privacy as the surrounding woods afforded. I knew that conditions comparable to these obtained in 1910 at a large proportion of the small rural schools in the United States. I tried to conceive of the glorious courage of a school teacher who under such conditions would undertake in the school the academic teaching of hygiene. I realized that an attempt to teach hygiene in the face of such unhygienic surroundings would not be apt to carry conviction to the minds of the children. It appeared clear that success in teaching hygiene in the schools could not be expected until the adult patrons and authorities of the schools were persuaded to effect the sanitation of the school and the school grounds.

Some of the younger and less experienced health officers at the conferences of 1910 and 1911 suggested rather timidly that in view of the adoption by rural adults of recent knowledge for improvement of methods of farming, orcharding, and stock raising, something might be expected from intensive campaigns for rural sanitation among the existing generation of adults in the rural districts.

In the spring of 1911 an officer of the Public Health Service was detailed to cooperate with the State board of health in making a sanitary survey in Yakima County, Wash. Yakima County had had, as far back as the records went, a high typhoid-fever rate—over three times as high as the average rate for the United States as a whole. In the course of the intensive sanitary survey, practical measures for the correction of the obviously insanitary conditions were recommended by the investigators and were carried out by the local people. As a result, the annual prevalence of typhoid fever in the county, as a whole, was reduced by about 90 per cent. In North Yakima, the principal town and the county seat, with a population of 14,082 in 1910, and of about 18,700 in 1914, the number of deaths

from typhoid fever reported each year in the period of seven years, including that of the campaign (1911), was as follows:

In 1908, 25; in 1909, 20; in 1910, 30; in 1911, 6; in 1912, 4; in 1913, 3; in 1914, 2. Of the deaths in 1911, 1912, 1913, and 1914, 2, 4, 3, and 2, respectively, were of persons who had contracted the disease elsewhere and who were brought to North Yakima for treatment. Thus, in the period of three years—1912, 1913, and 1914—not a death from typhoid fever of local origin was reported in this once heavily infected locality. In Yakima County, outside of North Yakima, deaths from typhoid fever were reported as follows: In 1910, 25; in 1911, 11; in 1912, 3; in 1913, none. A wholesome reduction in the death rate from causes other than typhoid fever also was accomplished. In 1910, the year preceding that of the survey, the number of deaths from all causes in the county was 517, and in 1912, the year succeeding that of the survey, 377.

While the work was in progress Yakima County established the precedent of creating the position of whole-time county health officer. A competent sanitarian was appointed to fill the position at a salary of \$5,000 a year. The annual appropriation for health work was increased by about \$6,500, and the results in the prevention of sickness and the economic losses incident thereto indicated that this was one of the best financial investments ever made by a county.

With this remarkable demonstration furnished by Yakima County it seemed possible that by intensive methods of work popular sentiment could be aroused for the advancement of sanitation in rural communities generally. It was realized, however, that conclusions about the prospects for success could not be drawn from the results in one county and that studies in counties presenting a wide range of conditions were needed.

From 1911 to 1914 the Public Health Service conducted studies of a number of typhoid fever outbreaks in country neighborhoods in different parts of the United States. Most of the outbreaks studied were in the State of Virginia. From these studies the direct relation of insanitary conditions to the spread of disease was clearly defined and the most salient features of sanitation needed at our rural homes generally were determined.

In the spring of 1914 a few thousand dollars from the fund appropriated for field investigations by the Public Health Service were allotted for special studies of rural sanitation, and with that money a plan of intensive rural sanitary surveys of representative counties in different parts of the country was begun. In the summers and falls of 1914, 1915, 1916, and 1917, these surveys were extended to 18 counties located in 16 States. The findings and the results of those surveys are presented in detail in Public Health Bulletin No. 94.

The conclusions from the surveys were:

1. Rural sanitation is needed.
2. Rural sanitation is feasible.
3. The cost of work necessary to secure marked advancement in rural sanitation is many times less than the cost of the illness and of the physical inefficiency which will be prevented by such advancement; therefore, prolonged, intensive, reasonably directed work for the advancement of sanitation in the rural districts generally of the United States would prove economic.

From follow-up observations on progress and retrogression in the counties surveyed from 1914 to 1917, and from the results of the rural sanitation work in the extra-cantonment areas in 1917 and 1918, it was concluded that for sustained advancement in rural hygiene the maintenance of a reasonably adequate official health organization constantly to look after the business of public health in the rural district is essential. Therefore the present plan of the Public Health Service in the field of rural health work is directed toward stimulating and assisting and actively cooperating with county and State health organizations in the establishment and maintenance of whole-time health organizations for continued cooperative health work in counties or townships as units of rural district government.

The need from a national standpoint of rural health work in the United States and the convincing evidence that without assistance from the National Government the work will not be carried forward generally at a reasonably adequate rate, indicate that in this field the National Government has a responsibility and an all-sufficient motive to take part. In view of all the angles of the situation the extreme conservatism of Congress in making appropriations for the rural health work of the Public Health Service is difficult to understand. The enactment of a bill, designated as the rural health act, and now pending before Congress, would enable the National Government to proceed in a systematic manner and in a way to evidence sincerity of purpose to do what appears essential for the vitally important and seriously needed general advancement of hygiene in the rural districts of our country.

The county demonstration work in rural sanitation now being conducted by the Public Health Service on as extensive a scale as the very limited appropriations will permit, and in cooperation with State boards of health and with county governments, is, briefly, as follows:

The county authorities made application for the cooperation. If their application is approved by their State board of health, a plan of work acceptable to all of the cooperating agencies is drawn up and agreed to. For the expenses of the work, as a rule, the county bears

one-half, the State board of health one-fourth, and the United States Public Health Service one-fourth. The size of the force to do the demonstration work varies with the needs and the resources of the county. For a rural county with a population of 20,000 or over, a health force for reasonably adequate work should consist at least of a whole-time health officer, a whole-time health nurse, and a whole-time sanitary inspector. For a smaller county, or for a large county in which sufficient funds for an adequate organization can not be made available, one health nurse or one sanitary inspector, working under an approved plan and under proper supervision, may accomplish a demonstration of much immediate value and one which will develop a public sentiment for a larger investment by the county for health work. To the county health officer, acting as head of the demonstration unit, invariably, and to the other members of the force, as a rule, is given an official status in the county government, the State board of health, and the Public Health Service. Since the appointees must be acceptable to each of the cooperating agencies, the county authorities in making the appointments are relieved of local political embarrassment. Preliminary to the formulation of the plan of work a trained sanitarian from the State board of health or one from the Public Health Service, or one from both, visits the county to study local conditions and to advise with the county authorities. Careful attention is given to the sequence in which the different branches of work are to be carried out to meet the most pressing health needs of the county. The scope of the work is indicated by the form of monthly progress reports sent by the head of the demonstration unit to each of the cooperating agencies, which is as follows:

Place.....

Date.....

Progress Report No.

COOPERATIVE RURAL SANITATION WORK.

Report for month of, year, county of

....., State of

Head of unit Official titles:

P. H. S.

.....

State.

County.

Address.

3. PHASES OF WORK—Continued.

- c. Special inspection.....
- Food-product places.....
- d. Physical examination of school children:
- (1) Number examined..... Previously reported..... Total.....
- (2) Number found defective..... Previously reported..... Total.....
- e. Number of life-extension examinations..... Previously reported..... Total.....
- f. Public health nursing:
- (1) Number of visits to cases communicable disease..... Previously reported..... Total.....
- (2) Number of talks given to groups of persons..... Previously reported..... Total.....
- (3) Number of visits to give prenatal care..... Previously reported..... Total.....
- (4) Number of visits to explain and demonstrate infant hygiene..... Previously reported..... Total.....
- g. Laboratory examinations:

Specimens.	Positive.	Negative.	Total.
Blood for Widal			
Blood for B. typhosus.....			
Smears for B. diphtheriae.....			
Sputum for B. tuberculosis.....			
Feces for hookworm.....			
.....			
.....			
.....			
Water for B. coli.....			
Milk for high bacterial content.....			
.....			
.....			
Total.....			

- h. Immunization:
- (1) Number of complete antityphoid inoculations..... Previously reported..... Total.....
- (2) Number of antismallpox vaccinations..... Previously reported..... Total.....
- (3) Number of complete antipneumonia inoculations..... Previously reported..... Total.....

i. Antimalaria work:

-
-
-
-

- j. Number of persons treated for removal of hookworm infection..... Previously reported..... Total.....

- k. Venereal disease prevention:
- (1) Number of prophylactic treatments..... Previously reported..... Total.....
- (2) Number of curative treatments..... Previously reported..... Total.....

- l. Number of visits by health officer or his assistants:
- (1) To diagnose suspected cases infectious disease..... Previously reported..... Total.....
- (2) To impose quarantine measures..... Previously reported..... Total.....

- m. Number of cases quarantined..... Previously reported..... Total.....

n. Other activities:

4. RESULTS:

a. Sanitary privies installed:

Type.	Number.		
	During month.	Previously reported.	Total.
L. R. S.
Concrete vault
Bucket and box
Pits
Total
b. New sewer connections
c. New water connections
d. Wells improved
e. Springs improved
f. Public milk supplies radically improved

g. Other results:

.....

.....

.....

.....

.....

.....

5. STATISTICS:

	Number.	Rate for current month.	Rate for corresponding month of previous year.
(a) Births
(b) Deaths

Surgeon K. E. Miller, served for two years, from 1917 until 1919, as whole-time health officer of Edgecombe County, N. C. He was detailed to that duty for the purpose of making a practical study of the problem of county health work as it may be conducted by a one-man health force. His results furnished an excellent demonstration of the possibilities of county health work conducted on a very economical basis. Dr. Miller's report on the work in Edgecombe County probably will be published by and obtainable in the near future from the Public Health Service.

In the work of the Public Health Service in the field of rural sanitation a demonstration has been made of the importance of concentration of the activities of the health force from time to time on one branch of sanitation with a view to obtaining concrete results. In the counties in the South in which malaria and typhoid fever and hookworm disease are highly prevalent, a concentration of activities to control mosquitoes or to secure sanitary collection and disposal of human excreta has been effective in convincing the citizens of the immediate value of the work, and so has served to develop what appears to be a lasting local popular sentiment to continue the health organization and so enable it to go on with other important branches of county health work. Specific measures for the control of mosquitoes, for the obtainment of safe water supplies, and for the safe disposal of human excreta in a rural community, are described in publications of the Public Health Service (Supplement No. 18 and Public Health Bulletins Nos. 68, 69, 70, and 89) which can be obtained on request from the United States Public Health Service, Washington, D. C.

Conclusion.

The master key to the door of success in the public health business is *work*. The health officer who consistently works hard will often succeed in much higher degree than the health officer of greater attainments who does not work so hard. Do not be discouraged if your efforts do not result in the establishment of perfect conditions. Get the best results you can and strive for more and better. Be practical; use common sense.

DIVISION OF VENEREAL DISEASES, SEPTEMBER, 1919.

The accompanying table covers the activities of 199 of the clinics operating under the joint control of the United States Public Health Service and State boards of health for the month of September, 1919.

The table shows that during the month there were 9,103 admissions and 21,127 remaining from last month, making a total of 30,230 under treatment; that 705 were discharged as cured, 1,056 as probably

cured, and 356 as noninfectious but not cured; and that 857 discontinued treatment with permission and 1,870 without permission, leaving 25,386 under treatment on September 30, 1919.

There were 93,915 treatments administered to the patients under the care of these clinics. Of these treatments 17,087 were the administration of arsphenamine.

Census of patients under care of 199 of the clinics operated by the United States Public Health Service and the State boards of health for the month of September, 1919.

State and city.	Total patients.	Re-main-ing on Sept. 1.	New admissions.	Discharged.			Discontinued treatment.		Re-main-ing under treatment.
				As cured.	Prob-ably cured.	Non-in-fectious but not cured.	With permis-sion.	With-out permis-sion.	
Total	30,230	21,127	9,103	705	1,056	356	857	1,870	25,386
Alabama	2,789	1,633	1,156	101	165	15	49	259	2,200
Anniston.....	147	103	44	1	41	.....	.....	33	72
Bessemer.....	49	19	30	1	5	4	4	9	26
Birmingham.....	984	460	524	6	102	.....	.....	142	734
Florence.....	61	14	47	19	.....	.....	5	.....	37
Huntsville.....	96	57	39	.....	2	.....	4	5	85
Mobile.....	411	289	131	.....	.....	.....	.....	.....	411
Montgomery.....	432	376	56	66	.....	.....	.....	58	308
Riverwood.....	21	8	13	.....	.....	.....	.....	4	17
Sylacauga.....	31	10	21	1	4	.....	3	1	22
Talladega.....	76	40	36	.....	3	7	1	.....	65
Thomaston.....	179	.....	79	.....	8	4	25	7	35
Tuscaloosa.....	402	266	136	7	.....	.....	7	.....	388
Arkansas	488	292	196	.....	38	27	8	39	376
Fort Smith.....	29	19	10	.....	.....	6	.....	3	20
Hot Springs.....	291	148	143	.....	38	10	8	16	219
Little Rock.....	168	125	43	.....	.....	11	.....	20	137
California	184	151	33	.....	11	6	18	15	134
Los Angeles.....	103	88	15	.....	2	.....	15	9	77
Santa Barbara.....	42	37	5	.....	4	.....	.....	2	36
Stockton.....	39	26	13	.....	5	6	3	4	21
Colorado	351	237	114	1	.....	27	9	41	273
Denver.....	274	237	37	.....	.....	26	2	29	217
Pueblo.....	155	.....	55	1	.....	1	1	10	42
Trinidad.....	122	.....	22	.....	.....	.....	6	2	14
Connecticut	662	519	143	88	42	10	27	39	456
Bridgeport.....	143	115	28	10	14	.....	8	14	97
New Haven.....	435	352	83	71	25	10	18	19	292
New London.....	56	35	21	2	1	.....	1	4	48
Stamford.....	28	17	11	5	2	.....	.....	2	19
Georgia	925	585	340	17	42	10	66	125	665
Columbus.....	63	53	10	.....	.....	.....	1	.....	62
Macon.....	589	395	194	8	37	.....	65	79	400
Savannah.....	273	137	136	9	5	10	.....	46	293
Illinois	1,303	708	595	53	35	4	29	27	1,155
Decatur.....	93	49	44	.....	10	.....	5	4	74
Chicago:									
Social Hyg. Leag.....	456	298	158	4	6	.....	2	.....	444
South Side Clinic.....	77	33	44	1	2	.....	.....	.....	74
Sedgewick.....	216	90	126	26	.....	.....	.....	.....	190
Racine Ave.....	239	110	129	23	.....	.....	.....	.....	217
Rockford.....	21	7	14	.....	.....	.....	.....	2	19
Springfield.....	55	30	25	.....	.....	.....	.....	5	50
East St. Louis.....	146	91	55	.....	17	4	22	16	87

¹ First report.

Census of patients under care of 199 of the clinics operated by the United States Public Health Service and the State boards of health for the month of September, 1919—Con.

State and city.	Total patients.	Re-main-ing on Sept. 1.	New ad-mis-sions.	Discharged.			Discontinued treatment.		Re-main-ing under treat-ment.
				As cured.	Prob-ably cured.	Nonin-fectious but not cured.	With permis-sion.	With-out permis-sion.	
Indiana.....	1,497	908	591	29	38	27	44	68	1,261
Anderson.....	95	55	40	.....	8	.....	2	11	74
Columbus.....	25	14	11	1	.....	.....	.....	4	20
East Chicago.....	142	112	30	.....	3	.....	12	2	125
Evansville.....	168	54	54	1	.....	.....	8	.....	99
Hammond.....	¹ 23	.....	23	.....	.....	.....	.....	.....	23
Indianapolis.....	48	19	29	.....	.....	22	.....	.....	26
Kokomo.....	90	26	64	.....	.....	.....	1	.....	89
Madison.....	¹ 11	.....	11	.....	.....	.....	.....	.....	11
Marion.....	28	16	12	1	.....	.....	.....	.....	27
Michigan City.....	105	87	18	3	15	2	.....	1	84
Muncie.....	175	138	37	.....	11	.....	.....	22	142
New Castle.....	26	4	22	1	.....	.....	.....	.....	25
South Bend.....	¹ 123	.....	123	.....	1	3	1	5	113
Terre Haute.....	498	381	117	22	.....	.....	20	23	433
Iowa.....	447	226	161	1	68	32	8	46	292
Davenport.....	57	4	53	.....	7	.....	.....	22	28
Des Moines.....	287	220	67	1	50	13	8	21	194
Council Bluffs.....	16	12	4	.....	1	.....	.....	3	12
Clinton.....	40	22	18	.....	.....	7	.....	.....	33
Iowa City.....	47	28	19	.....	10	12	.....	.....	25
Louisiana.....	1,593	1,018	455	15	89	.....	52	111	1,236
Alexandria.....	151	96	55	.....	19	.....	.....	.....	132
New Orleans:	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charity Hospital.....	678	480	198	15	.....	.....	39	84	540
Touro Infirmary.....	335	235	101	.....	41	.....	13	15	267
Shreveport.....	338	237	101	.....	29	.....	.....	12	297
Maine.....	120	94	26	.....	1	.....	3	.....	116
Bangor.....	101	79	22	.....	.....	.....	.....	.....	101
Bath.....	14	11	3	.....	.....	.....	3	.....	11
Calais.....	5	4	1	.....	1	.....	.....	.....	4
Massachusetts.....	2,523	1,976	552	19	8	9	75	114	2,303
Attleboro.....	10	7	3	.....	.....	.....	3	.....	7
Boston:	.....	.....	.....	.....	.....	.....	.....	.....	.....
City Hospital (skin).....	45	29	16	.....	.....	.....	.....	2	43
City Hospital (G. U.).....	135	97	38	2	.....	.....	11	15	107
Dispensary.....	1,152	967	185	13	6	8	51	65	1,069
General Hospital (syphilis).....	674	522	152	.....	.....	.....	.....	.....	674
General Hospital (G. U.).....	126	94	32	.....	.....	.....	.....	.....	126
Homeopathic Hospital.....	61	41	20	2	.....	.....	.....	4	55
Brockton.....	12	7	5	.....	.....	.....	4	.....	8
Fall River.....	70	57	13	.....	1	.....	2	3	64
Fitchburg.....	18	14	4	.....	.....	.....	.....	.....	18
Lowell.....	15	1	14	.....	.....	.....	.....	.....	15
Lynn.....	58	40	18	.....	.....	1	.....	5	52
New Bedford.....	110	72	38	2	1	.....	3	3	101
Pittsfield.....	3	1	2	.....	.....	.....	1	.....	2
Worcester.....	30	27	12	.....	.....	.....	.....	17	22
Michigan.....	217	45	172	.....	6	.....	.....	3	208
Battle Creek.....	31	25	6	.....	5	.....	.....	.....	26
Flint.....	¹ 117	117	117
Jackson.....	28	20	8	28
Kalamazoo.....	¹ 6	6	1	5
Saginaw.....	¹ 35	35	3	32

¹ First report.

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State and city	Total patients.	Re-main-ing on Sept. 1.	New admis-sions.	Discharged.			Discontinued treatment.		Re-main-ing under treatment.
				As cured.	Pro-bably cured.	Nonin-fectious but not cured.	With permis-sion.	With-out permis-sion.	
Minnesota	616	463	153	6	13	.....	16	41	540
Duluth.....	133	107	26	.....	2	.....	4	12	115
Minneapolis:									
University.....	118	65	53	.....	4	.....	.....	.....	114
City Hospital.....	84	46	38	6	.....	.....	5	23	50
St. Paul.....	281	245	36	.....	7	.....	7	6	261
Mississippi	189	132	57	1	25	4	32	15	112
Jackson.....	139	109	30	1	9	4	22	9	94
Laurel.....	50	23	27	.....	16	.....	10	6	18
Missouri	391	123	268	5	12	.....	.....	44	330
Joplin.....	141	123	18	5	7	.....	.....	4	125
St. Louis.....	250	.....	250	.....	5	.....	.....	40	205
Montana	136	104	32	.....	.....	21	.....	.....	115
Butte.....	136	104	32	.....	.....	21	.....	.....	115
Nebraska	252	180	72	.....	2	12	.....	30	206
Lincoln.....	40	17	23	.....	2	12	.....	6	20
Omaha:									
Medical College.....	93	62	31	.....	.....	.....	.....	10	83
University.....	119	101	18	.....	.....	.....	.....	14	105
New Hampshire	127	96	31	.....	3	.....	.....	3	121
Manchester.....	114	91	23	.....	3	.....	.....	3	108
Nashua.....	13	5	8	.....	.....	.....	.....	.....	13
New York	2,530	1,821	709	6	101	8	78	179	2,158
Albany:									
Dispensary.....	18	9	9	.....	.....	.....	3	1	14
Hospital.....	5	4	1	.....	.....	.....	.....	.....	5
St. Peters' Clinic.....	5	1	4	.....	.....	.....	1	.....	4
Amsterdam.....	15	12	3	1	.....	.....	3	1	10
Bath.....	3	2	1	.....	.....	1	.....	.....	2
Binghamton.....	81	55	26	.....	9	1	2	6	63
Buffalo.....	411	334	77	.....	4	.....	4	2	401
Dunkirk.....	16	9	7	.....	1	1	4	1	9
Gloversville.....	26	24	2	.....	7	.....	.....	.....	19
Jamestown.....	21	16	5	.....	.....	.....	.....	.....	21
Johnstown.....	4	4	.....	.....	.....	.....	.....	.....	4
Little Falls.....	3	3	.....	.....	.....	.....	.....	.....	3
Middletown.....	25	20	5	.....	.....	.....	.....	1	24
New York City, Skin and Cancer Hospital.....	336	511	325	.....	66	.....	17	27	726
Niagara Falls.....	39	29	10	1	.....	5	.....	5	28
Oswego.....	11	10	1	.....	1	.....	.....	3	7
Poughkeepsie.....	50	42	8	.....	4	.....	5	2	39
Rochester:									
General Hospital.....	85	60	25	.....	.....	.....	9	8	68
Hahneman Hospital.....	10	.....	10	.....	.....	.....	.....	.....	10
Badin St. Dispensary.....	112	86	26	2	.....	.....	14	6	90
Rockville Center.....	21	9	12	.....	.....	.....	.....	.....	21
Rome.....	43	32	11	.....	.....	.....	.....	.....	43
Schenectady.....	129	116	13	.....	6	.....	5	22	96
Syracuse.....	254	201	53	.....	.....	.....	.....	79	175
Troy.....	61	54	7	1	.....	.....	5	3	52
Utica:									
Dispensary.....	83	52	31	1	3	2	3	74
Genesee Street.....	39	30	9	4	28
Yonkers.....	124	96	28	2	122

¹ First report.

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State and city.	Total patients.	Re-main-ing on Sept. 1.	New admis-sions.	Discharged.			Discontinued treatment.		Re-main-ing under treat-ment.
				As cured.	Prob-ably cured.	Nonin-fectious but not cured.	With permis-sion.	With-out permis-sion.	
North Carolina	996	615	381	33	10	28	23	48	884
Asheville.....	75	42	33	19		1	2	15	38
Charlotte.....	415	321	94				9	10	396
Clinton.....	9	7	2		3			2	4
Fayetteville.....	113	91	22	3			3		167
Greensboro.....	145		45	4	2	8		1	26
Rocky Mount.....	27	23	4						27
Wilmington.....	175	87	88	3	3		3	10	156
Winston.....	137	44	93	4	2	19	2	10	100
North Dakota	33	27	6	1		6	2	1	23
Minot.....	33	27	6	1		6	2	1	23
Ohio	3,571	2,860	711	50	68	24	96	140	3,193
Akron.....	565	460	105	12	6	2	34	2	569
Alliance.....	55	48	7		3		2	2	48
Ashtabula.....	3	1	2						3
Chillicothe.....	17	14	3					2	15
Cincinnati:									
General Hospital.....	293	252	41						293
U. S. P. H. S. Clinic.....	194	131	63	2	16	15		23	138
Cleveland:									
Lakeside Hospital (G. U.).....	265	213	52	6	10				249
Lakeside Hospital (night).....	219	202	17	1			3	8	207
Lakeside Hospital (day).....	649	578	71	3			11	29	606
Columbus.....	159	118	41				3	35	121
Dayton.....	99	68	31	1	1		13	12	72
Hamilton.....	22	16	6				1		21
Lima.....	135	98	37		8		16	2	109
Lorain.....	40	34	6				2		38
Portsmouth.....	171	132	39	2	10		3	6	150
Springfield.....	65	44	21	2	6		2		55
Toledo.....	429	321	108	16	8				405
Youngstown.....	123	103	20	1			2	15	105
Warren.....	32	16	16	4			4	2	22
Warrensville.....	36	11	25			7		2	27
Oklahoma	1,640	1,166	474	61	67	49	75	176	1,212
Ardmore.....	475	464	11		7	2			466
Chickasha.....	30	15	15	16				1	13
El Reno.....	34	8	26	9					26
Enid.....	31	10	21	7					24
Holdenville.....	29	17	12	5	6	1			17
Miami.....	54	25	29		2		1	2	49
Muskogee.....	66	32	34	7	2	2	9	2	44
Picher.....	208	135	73	7	32	18	16	30	105
Oklahoma City.....	456	279	177	5	18	11	29	141	252
Tulsa.....	257	181	76	5		15	20		217
Oregon	171	97	74	1			9	8	153
Portland.....	171	97	74	1			9	8	153
Rhode Island	623	559	64	4	9		10	30	570
Pawtucket.....	58	48	10				1	1	56
Providence:									
City Hospital.....	524	480	44		7		8	25	484
St. Joseph's Hospital.....	14	10	4	3					11
Newport.....	13	10	3	1	2				10
Woonsocket.....	14	11	3				1	4	9

¹ First report.

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				As cured.	Prob-ably cured.	Non-in-fectious but not cured.	With permis-sion.	With-out permis-sion.	
South Carolina	2,530	1,784	746	104	82	3	70	173	2,098
Charleston.....	233	124	109	16	8	.....	10	22	177
Columbia.....	630	483	147	2	18	3	18	25	564
Florence.....	417	310	107	79	5	.....	8	.....	325
Greenville.....	631	497	134	7	17	.....	20	97	490
Newberry.....	¹ 92	.....	92	.....	.....	.....	.....	.....	92
Orangeburg.....	314	252	62	.....	8	.....	22	.....	284
Spartansburg.....	213	118	95	.....	26	.....	.....	21	166
South Dakota	17	11	6	.....	.....	2	.....	1	14
Aberdeen.....	17	11	6	.....	.....	2	.....	1	14
Tennessee	298	231	67	17	6	.....	8	32	235
Chattanooga.....	298	231	67	17	6	.....	8	32	235
Texas	2,159	1,619	340	44	46	14	19	16	2,020
Austin.....	8	5	3	.....	3	.....	.....	.....	5
El Paso.....	572	516	56	17	16	6	10	16	507
Galveston.....	366	317	49	4	16	.....	.....	.....	346
Houston.....	1,213	981	232	23	11	8	9	.....	1,162
Utah	208	99	109	13	19	8	14	7	147
Ogden.....	54	30	24	5	2	2	8	5	32
Salt Lake Hospital.....	73	19	54	5	17	.....	.....	1	50
Clinic.....	81	50	31	3	.....	6	6	1	65
Vermont	43	38	5	3	.....	.....	.....	.....	40
Burlington.....	43	38	5	3	.....	.....	.....	.....	40
Virginia	573	349	224	27	40	3	17	29	457
Danville.....	77	58	19	.....	4	1	7	3	62
Lynchburg.....	75	47	28	3	2	.....	2	2	66
Norfolk.....	79	22	57	4	2	2	8	4	59
Petersburg.....	45	15	30	5	.....	.....	.....	2	38
Richmond.....	231	172	59	14	20	.....	.....	14	183
Roanoke.....	66	35	31	1	12	.....	.....	4	49
West Virginia	117	77	40	5	10	7	.....	10	85
Charleston.....	32	19	13	3	.....	2	.....	4	23
Davis.....	3	.....	3	.....	1	.....	.....	.....	2
Elkins.....	27	27	.....	.....	3	3	.....	.....	21
Fairmont.....	21	12	9	.....	6	2	.....	.....	13
Glendale.....	10	1	9	2	.....	.....	.....	.....	8
Huntington.....	6	.....	6	.....	.....	.....	.....	6	.....
Parkersburg.....	18	18	.....	.....	.....	.....	.....	.....	18

¹ First report.

THE COMMITTEE ON INDUSTRIAL MORBIDITY STATISTICS— A CORRECTION.

In the continuation report of the committee on industrial morbidity statistics of the American Public Health Association, Section on Vital Statistics, Public Health Reports, October 17, 1919, page 2292, the names of two members of the committee were inadvertently omitted. The members of the committee are:

Louis I. Dublin, chairman.

Carl B. Auel.

William A. Hathaway.

B. S. Warren, secretary.

DEATHS DURING WEEK ENDED OCT. 25, 1919.

From the "Weekly Health Index," Oct. 28, 1919, issued by the Bureau of the Census, Department of Commerce.

Deaths from all causes in certain large cities of the United States during the week ended Oct. 25, 1919, infant mortality (per cent), annual death rate, and comparison with corresponding week of preceding years.

City.	Population July 1, 1918, estimated.	Week ended Oct. 25, 1919.		Average annual death rate per 1,000. ²	Per cent of deaths under 1 year.	
		Total deaths.	Death rate. ¹		Week ended Oct. 25, 1919.	Previous year or years. ³
Albany, N. Y.	112,565	33	15.3	C13.1	9.1	C7.1
Atlanta, Ga.	201,732	47	12.1	C16.5	14.9	C9.7
Baltimore, Md.	669,981	179	13.9	A15.6	21.2	A15.9
Birmingham, Ala.	197,670	40	10.6	A15.4	10.0	A10.5
Boston, Mass.	785,245	175	11.6	A13.7	17.1	A15.7
Buffalo, N. Y.	473,229	112	12.3	A17.4	13.4	A17.2
Cambridge, Mass.	111,432	34	15.9	A12.9	14.7	A14.1
Chicago, Ill.	2,596,681	535	10.7	A12.2	15.5	A18.4
Cincinnati, Ohio.	418,022	102	12.7	C13.7	15.7	C14.7
Cleveland, Ohio.	810,306	135	8.7	C12.4	16.3	.....
Columbus, Ohio.	225,296	45	10.4	C17.8	15.6	C10.7
Dayton, Ohio.	130,655	24	9.6	A11.1	25.0	A14.9
Denver, Colo.	.....	77	.....	A12.2	7.8	.....
Full River, Mass.	128,302	21	8.5	C11.9	14.3	C27.6
Grand Rapids, Mich.	135,450	30	11.5	C10.6	30.0	C0.0
Indianapolis, Ind.	290,389	62	11.1	C14.0	4.8	C7.9
Jersey City, N. J.	318,770	80	13.1	C12.0	13.8	C16.7
Kansas City, Mo.	313,785	91	15.1	C15.7	17.6	C12.0
Los Angeles, Calif.	568,495	135	12.4	A12.4	7.4	A10.0
Louisville, Ky.	212,707	63	13.5	C14.3	1.6	C18.2
Lowell, Mass.	109,081	24	11.5	A13.9	12.5	A32.6
Memphis, Tenn.	154,759	38	12.8	C21.3	13.2	C 8.1
Milwaukee, Wis.	453,481	73	8.4	A10.2	19.2	A23.3
Minneapolis, Minn.	383,442	62	8.4	C7.3	11.3	C11.5
Nashville, Tenn.	119,215	23	10.1	C15.4	17.4	C8.6
Newark, N. J.	428,684	97	11.8	A12.1	14.4	.....
New Haven, Conn.	154,865	39	13.1	C13.4	7.7	C10.3
New Orleans, La.	382,273	120	16.4	A18.8	12.5	A11.8
New York, N. Y.	5,215,879	1,038	10.4	A12.9	16.6	A17.7
Oakland, Calif.	214,296	41	10.0	A10.4	7.3	A12.6
Omaha, Neb.	180,264	38	11.0	C13.7	15.8	C4.5
Philadelphia, Pa.	1,761,371	382	11.3	* 13.4	17.5	* 15.8
Pittsburgh, Pa.	593,303	139	14.0	C15.4	19.5	C15.0
Portland, Oreg.	.....	43	.....	C6.9	4.7	C22.0
Providence, R. I.	263,613	62	12.3	C11.7	11.3	C20.7
Richmond, Va.	160,719	43	14.0	C15.1	20.9	C10.9
Rochester, N. Y.	264,856	65	12.8	C12.9	15.4	C12.5
St. Louis, Mo.	779,951	208	13.9	C12.1	8.7	C12.9
St. Paul, Minn.	257,699	43	8.7	C11.2	11.6	C22.2
San Francisco, Calif.	478,530	137	14.9	C14.2	3.6	C7.8
Seattle, Wash.	.....	60	.....	A7.5	8.3	A11.3
Spokane, Wash.	.....	29	.....	C6.3	3.4	C5.3
Syracuse, N. Y.	161,404	40	12.9	C13.5	22.5	C24.4
Toledo, Ohio.	262,234	53	10.5	A11.8	17.0	A18.0
Washington, D. C.	401,681	97	12.6	A14.0	11.3	A11.5
Worcester, Mass.	173,650	44	13.2	C13.5	13.6	C15.9

¹ Annual rates per 1,000 estimated population.

² "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1917.

³ Population estimated as of July 1, 1919.

* Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended Oct. 25, 1919.

Policies in force.....	41,628,459
Number of death claims.....	7,208
Death claims per 1,000 policies in force, annual rate.....	9.0

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended November 1, 1919.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		CALIFORNIA—continued.	
	Cases.		Cases.
Diphtheria.....	35	Smallpox—Continued.....	
Influenza.....	7	Los Angeles.....	2
Malaria.....	12	Madera County.....	3
Poliomyelitis.....	1	San Diego.....	1
Scarlet fever.....	10	San Francisco.....	1
Smallpox.....	1	San Joaquin County.....	2
Tetanus.....	1	Santa Barbara.....	1
Tuberculosis (pulmonary).....	10	Shasta County.....	2
Typhoid fever.....	12	Whittier.....	2
Veneral diseases.....	42	Typhoid fever:	
Whooping cough.....	8	Fresno County.....	1
		Gilroy.....	2
		Los Angeles.....	7
		Madera.....	1
		Monterey County.....	1
		Ontario.....	1
		Plumas County.....	1
		Sacramento.....	4
		San Francisco.....	2
		San Joaquin County.....	1
		Santa Clara County.....	2
		Santa Cruz.....	1
		Stockton.....	1
		Riverside County.....	1
ARKANSAS.		CONNECTICUT.	
		Chicken pox.....	34
Cerebrospinal meningitis.....	1	Conjunctivitis (infectious).....	4
Chaneroid.....	2	Diphtheria:	
Chicken pox.....	11	Fairfield County—	
Diphtheria.....	87	Bridgeport.....	9
Gonorrhea.....	46	Stanford.....	5
Influenza.....	7	Stratford.....	4
Malaria.....	209	Westport.....	2
Measles.....	9	Hartford County—	
Ophthalmia neonatorum.....	2	Bristol.....	10
Pellagra.....	16	Glastonbury.....	5
Poliomyelitis.....	1	Hartford.....	5
Scarlet fever.....	87	New Britain.....	7
Smallpox.....	7	Rocky Hill.....	1
Syphilis.....	11	West Hartford.....	1
Trachoma.....	7		
Tuberculosis.....	26		
Typhoid fever.....	49		
Whooping cough.....	10		
CALIFORNIA.			
Cerebrospinal meningitis:			
Los Angeles.....	1		
Influenza.....	22		
Smallpox:			
Chino.....	1		
Eureka.....	1		
Fillmore.....	4		

CONNECTICUT—continued.

Diphtheria—Continued.

	Cases.
Litchfield County—	
Watertown.....	3
Middlesex County—	
Middletown.....	2
New Haven County—	
Branford.....	2
Derby.....	5
East Haven.....	2
Hamden.....	1
Meriden.....	2
Naw Haven.....	12
Orange.....	1
Wallingford.....	7
Waterbury.....	26
New London County—	
Groton.....	1
Jewett City.....	2
New London.....	2
Norwich.....	2
Stonington.....	1
Windham County—	
Plainfield.....	1
Gonorrhea.....	6
Influenza:	
Fairfield County—	
New Canaan.....	1
Hartford County—	
Glastonbury.....	1
Hartford.....	1
New Britain.....	1
Southington.....	1
Litchfield County—	
Watertown.....	3
Measles:	
Fairfield County—	
Bridgeport.....	2
Stamford.....	5
Stratford.....	1
Trumbull.....	1
Hartford County—	
Glastonbury.....	1
New Haven County—	
Milford.....	5
New Haven.....	16
North Haven.....	1
Orange.....	4
Seymour.....	18
Waterbury.....	3
New London County—	
New London.....	1
Middlesex County—	
East Hampton.....	1
Windham County—	
Plainfield.....	1
Mumps.....	32
Paratyphoid fever.....	1
Pneumonia.....	1
Poliomyelitis:	
New Haven County—	
Wallingford.....	1
Scarlet fever:	
Fairfield County—	
Bridgeport.....	1
Stamford.....	1
Westport.....	5

CONNECTICUT—continued.

Scarlet fever—Continued.

	Cases.
Hartford County—	
Bristol.....	4
Canton.....	1
Hartford.....	17
Manchester.....	4
New Britain.....	7
Litchfield County—	
Plymouth.....	7
Watertown.....	3
New Haven County—	
Ansonia.....	1
East Haven.....	1
Meriden.....	4
Milford.....	1
New Haven.....	6
Orange.....	3
Wallingford.....	5
Waterbury.....	2
New London County—	
Griswold.....	2
New London.....	1
Syphilis.....	19
Tuberculosis.....	47
Typhoid fever:	
Hartford County—	
Hartford.....	3
New Britain.....	1
Litchfield County—	
Plymouth.....	2
New Haven County—	
East Haven.....	1
New Haven.....	4
Wallingford.....	1
Whooping cough.....	17

DELAWARE.

Diphtheria:

Milford.....	1
New Castle.....	1
Wilmington.....	6

Influenza:

Laurel.....	1
Wilmington.....	1

Measles:

Seaford.....	1
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Pneumonia:

Middletown.....	1
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Scarlatina:

Greenwood.....	2
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Scarlet fever:

Dover.....	1
Naamans.....	1
Wilmington.....	4

Smallpox:

Millsboro.....	1
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Trachoma:

Wilmington.....	1
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Tuberculosis:

Laurel.....	1
Wilmington.....	3

Typhoid fever:

Hartley.....	1
Seaford.....	1

FLORIDA.	
	Cases.
Cerebrospinal meningitis.....	1
Diphtheria.....	14
Dysentery.....	3
Influenza.....	16
Malaria.....	53
Pneumonia.....	1
Scarlet fever.....	5

GEORGIA.	
Actinomyecosis.....	1
Chicken pox.....	13
Diphtheria.....	77
Dysentery (amebic).....	2
Dysentery (bacillary).....	2
Gonorrhea.....	67
Hookworm.....	3
Influenza.....	30
Malaria.....	121
Measles.....	3
Measles (German).....	1
Mumps.....	5
Paratyphoid fever.....	4
Pneumonia (acute lobar).....	8
Scarlet fever.....	16
Septic sore throat.....	9
Smallpox.....	4
Syphilis.....	78
Tetanus.....	1
Tuberculosis (pulmonary).....	6
Typhoid fever.....	21
Whooping cough.....	23

ILLINOIS.	
Cerebrospinal meningitis:	
Chicago.....	4
Elgin.....	1
Moline.....	1
Chancroid.....	15
Diphtheria:	
Belleville.....	7
Chicago.....	227
Duquoin.....	7
Eldorado.....	4
Galatia.....	4
Granite City.....	32
Hainesville.....	2
Harrisburg.....	3
Kell.....	6
Marion.....	3
Marion County.....	7
Nokomis.....	3
Oak Park.....	3
Peoria.....	16
Rockford.....	9
Rock Island.....	5
Salem.....	20
Stephenson.....	2
Streator.....	5
Thebes.....	3
Scattering.....	57
Gonorrhea.....	279
Influenza:	
Chicago.....	48
Scattering.....	12
Poliomyelitis:	
Aurora.....	4

ILLINOIS—continued.	
Poliomyelitis—Continued.	Cases.
East St. Louis.....	1
Galesburg.....	1
Kane County.....	2
Mounds.....	1
Scarlet fever:	
Ava.....	3
Buffalo.....	3
Chicago.....	143
East Oakland.....	4
Granite City.....	6
Harvard.....	3
Maestown.....	5
Olney.....	6
Peoria.....	13
Springfield.....	5
Spring Lake.....	2
Tazewell County.....	4
Scattering.....	74
Smallpox:	
Chicago.....	3
Cooks.....	2
Hamilton County.....	3
Quincy.....	3
Roodhouse.....	4
Scattering.....	8
Syphilis.....	177
Typhoid fever:	
Chicago.....	2
Girard.....	3
Joliet.....	13
Waukegan.....	3
Will County.....	13
Scattering.....	35

INDIANA.	
Cerebrospinal meningitis:	
Steuben County.....	1
Diphtheria:	
Blackford County.....	1
Cass County.....	1
Elkhart County.....	2
Fountain County.....	1
Fulton County.....	1
Gibson County.....	3
Hendricks County.....	3
Henry County.....	1
Howard County.....	2
Jackson County.....	2
Knox County.....	1
Kosciusko County.....	1
Lake County.....	3
Madison County.....	1
Marion County.....	14
Miami County.....	1
Monroe County.....	3
Pulaski County.....	7
Ripley County.....	1
St. Joseph County.....	3
Tipton County.....	2
Vermilion County.....	1
Vigo County.....	3
Wayne County.....	4
White County.....	2
Gonorrhea.....	70

INDIANA—continued.

Influenza:	Cases.
Clay County.....	2
Dekalb County.....	3
Fountain County.....	7
Greene County.....	2
Henry County.....	4
Lake County.....	1
Martin County.....	11
Miami County.....	2
Ohio County.....	2
Ripley County.....	1
Steuben County.....	1
Wabash County.....	2
White County.....	7
Poliomyelitis:	
Elkhart County.....	
Laporte County.....	
Marion County.....	
Steuben County.....	
Rabies in animals:	
Lake County.....	1
Scarlet fever:	
Benton County.....	3
Blackford County.....	4
Cass County.....	10
Carroll County.....	1
Clay County.....	4
Clinton County.....	2
Decatur County.....	7
Floyd County.....	1
Fountain County.....	1
Franklin County.....	1
Gibson County.....	3
Grant County.....	2
Hendricks County.....	1
Henry County.....	2
Huntington County.....	1
Knox County.....	1
Kosciusko County.....	1
Lake County.....	2
Laporte County.....	1
Marion County.....	10
Miami County.....	2
Monroe County.....	1
Montgomery County.....	1
Noble County.....	6
Porter County.....	5
Ripley County.....	5
Rush County.....	2
St. Joseph County.....	1
Shelby County.....	3
Tippecanoe County.....	2
Vermillion County.....	1
Vigo County.....	2
Wabash County.....	3
Warrick County.....	1
Wayne County.....	1
Wells County.....	6
White County.....	5
Smallpox:	
Dearborn County.....	3
Elkhart County.....	1
Fountain County.....	7
Grant County.....	3
Hamilton County.....	2
Howard County.....	24

INDIANA—continued.

Smallpox—Continued.	Cases.
Huntington County.....	1
Laporte County.....	16
Madison County.....	1
Marion County.....	6
St. Joseph County.....	3
Shelby County.....	1
Vermillion County.....	5
Warrick County.....	1
Syphilis.....	64
Typhoid fever:	
Cass County.....	1
Delaware County.....	1
Elkhart County.....	3
Fountain County.....	1
Greene County.....	1
Laporte County.....	1
Marion County.....	6
Marshall County.....	1
Martin County.....	2
Noble County.....	2
Pike County.....	1
Tipton City.....	1
Vigo County.....	3
Wabash County.....	1

IOWA.

Chancreoid.....	10
Diphtheria:	
Benton County.....	1
Britt.....	4
Cedar Rapids.....	3
Chariton.....	20
Des Moines.....	4
Dubuque.....	1
Hamilton County.....	1
Hancock County.....	1
Howard County.....	2
Madrid.....	1
Mason City.....	4
Monroe.....	1
Union County.....	2
Gonorrhea.....	168
Influenza:	
Iowa Falls.....	1
Jasper County.....	2
Maxwell.....	1
Waverly.....	1
Measles:	
Mason City.....	1
Mumps.....	3
Poliomyelitis:	
Monona County.....	1
Scarlet fever:	
Atlantic.....	1
Boone.....	3
Boone County.....	1
Burlington.....	1
Chariton.....	3
Chickasaw County.....	2
Clearfield.....	2
Collfax.....	1
Dallas County.....	1
Davenport.....	1
Des Moines.....	12
Forest City.....	3

IOWA—continued.		MAINE—continued.	
Scarlet fever—Continued.	Cases.		Cases.
Fredericksburg.....	2	Syphilis.....	9
Grundy County.....	2	Tuberculosis.....	7
Jasper County.....	3	Typhoid fever:	
Keokuk County.....	1	Bath.....	5
Kossuth County.....	1	Bowdoinham.....	1
Lucas County.....	2	Portland.....	4
Maxwell.....	1	Rockland.....	1
Newton.....	1	Whooping cough.....	2
Page County.....	1		
Sydney.....	1	MASSACHUSETTS.	
Taylor County.....	1	Cerebrospinal meningitis.....	1
Tingley.....	1	Chicken pox.....	141
Valeria.....	2	Conjunctivitis (suppurative).....	4
Smallpox:		Diphtheria.....	278
Cedar Falls.....	15	Gonorrhea.....	174
Clinton County.....	2	Influenza.....	26
Davenport.....	4	Leprosy:	
Lost Nation.....	3	Boston.....	1
Syphilis.....	37	Measles (German).....	8
		Measles.....	150
KANSAS.		Mumps.....	76
Diphtheria.....	127	Ophthalmia neonatorum.....	23
Influenza.....	14	Pneumonia (lobar).....	46
Scarlet fever.....	67	Poliomyelitis (anterior).....	4
Smallpox.....	32	Scarlet fever.....	228
		Septic sore throat.....	5
LOUISIANA.		Syphilis.....	65
Chancroid.....	23	Tuberculosis (pulmonary).....	126
Diphtheria.....	17	Tuberculosis (other forms).....	10
Gonorrhea.....	112	Typhoid fever.....	33
Influenza.....	35	Whooping cough.....	77
Plague (bubonic).....	4		
Scarlet fever.....	13	MINNESOTA.	
Smallpox.....	3	Cerebrospinal meningitis.....	3
Syphilis.....	76	Chancroid.....	5
Typhoid fever.....	5	Gonorrhea.....	89
		Poliomyelitis.....	2
MAINE.		Smallpox (new foci):	
Diphtheria:		Faribault County, Emerald Township.....	1
Brunswick.....	1	Fillmore County, Fillmore Township.....	1
Cornish.....	1	Kanabec County, Knife Lake Township.....	1
Lewiston.....	3	Wabash County, Zumbro Falls.....	1
Milo.....	1	Syphilis.....	114
Norridgewock.....	2		
Portland.....	1	MONTANA.	
Windham.....	1	Diphtheria.....	7
York.....	1	Influenza.....	10
Gonorrhea.....	26	Poliomyelitis:	
Influenza:		Alberton.....	1
Jay.....	1	Scarlet fever.....	23
Mumps.....	5	Smallpox.....	25
Poliomyelitis:		Septic sore throat.....	6
Portland.....	1	Typhoid fever.....	6
Scarlet fever:			
Canaan.....	1	NEW JERSEY.	
Eddington.....	1	Diphtheria:	
Friendship.....	4	Warren County—	
Portland.....	4	Phillipsburg, unusual outbreak.	
Sherman.....	2	Influenza.....	29
Waldoboro.....	7	Pneumonia.....	64
Wilton.....	6	Scarlet fever:	
Smallpox:		Passaic County, Bloomingdale Borough,	
Auburn.....	1	small outbreak.	
Freeport.....	1	Typhoid fever:	
Jay.....	3	Burlington County, Medford Township,	
Lewiston.....	1	small outbreak.	
Webster.....	1		

NEW YORK.		WASHINGTON—continued.	
(Exclusive of New York City.)		Cases.	
Cerebrospinal meningitis:		Syphilis.....	10
Rochester.....	1	Tuberculosis.....	4
Diphtheria:		Typhoid fever.....	7
Erie County.....	101	Whooping cough.....	30
Scattering.....	177		
Gonorrhea.....	55	WEST VIRGINIA.	
Influenza.....	32	Cerebrospinal meningitis:	
Measles.....	94	Buckhannon.....	1
Pneumonia.....	63	Diphtheria:	
Scarlet fever.....	144	Bluefield.....	3
Smallpox:		Charleston.....	7
Rochester.....	1	Elkins.....	1
Syphilis.....	207	Fairmont.....	7
Typhoid fever.....	29	Grafton.....	2
Whooping cough.....	157	Hinton.....	1
		Huntington.....	15
NORTH CAROLINA.		Keyser.....	1
Cerebrospinal meningitis.....	1	Martinsburg.....	2
Chancroid.....	10	Montgomery.....	1
Chicken pox.....	39	Morgantown.....	1
Cholera Infantum.....	3	New Martinsville.....	1
Diphtheria.....	215	Parkersburg.....	2
Dysentery (bacillary).....	5	Parsons.....	4
Gonorrhea.....	127	Weston.....	3
Measles (German).....	3	Wheeling.....	3
Measles.....	20	Williamson.....	3
Ophthalmia neonatorum.....	1	Scarlet fever:	
Pneumonia (broncho).....	8	Bluefield.....	1
Pneumonia (lobar).....	8	Buckhannon.....	1
Polioomyelitis.....	1	Charleston.....	2
Scarlet fever.....	77	Fairmont.....	7
Septic sore throat.....	25	Grafton.....	1
Smallpox.....	24	Huntington.....	2
Syphilis.....	47	Logan.....	1
Typhoid fever.....	57	Morgantown.....	3
Whooping cough.....	154	Pennsboro.....	1
		Salem.....	7
OHIO.		Wheeling.....	1
Diphtheria:		Smallpox:	
Columbus Grove.....	9	Grafton.....	1
Cincinnati.....	26	Huntington.....	4
Scarlet fever:		Montgomery.....	1
Cincinnati.....	22	Williamson.....	3
Lima.....	6	Typhoid fever:	
Waynesville.....	5	Bluefield.....	1
Typhoid fever.....	4	Ripley.....	3
		Williamson.....	1
VIRGINIA.		WISCONSIN.	
Cerebrospinal meningitis:		Cerebrospinal meningitis:	
Richmond.....	1	Milwaukee.....	1
Polioomyelitis:		Scattering.....	1
Spotsylvania County.....	1	Chancroid.....	2
Smallpox:		Chicken pox.....	56
Rockingham County, several cases.		Diphtheria:	
		Milwaukee.....	54
WASHINGTON.		Scattering.....	21
Chicken pox.....	38	Erysipelas:	
Diphtheria.....	36	Milwaukee.....	2
Gonorrhea.....	14	Gonorrhea.....	94
Influenza.....	2	Measles:	
Measles.....	9	Milwaukee.....	26
Mumps.....	23	Scattering.....	23
Scarlet fever.....	46	Polioomyelitis.....	3
Smallpox.....	66		

WISCONSIN—continued.		WISCONSIN—continued.	
	Cases.		Cases.
Scarlet fever:		Tuberculosis:	
Milwaukee.....	24	Milwaukee.....	16
Scattering.....	88	Scattering.....	11
Smallpox:		Typhoid fever:	
Milwaukee.....	9	Milwaukee.....	1
Scattering.....	26	Scattering.....	4
Syphilis.....	20	Whooping cough.....	57

SUMMARY OF CASES REPORTED MONTHLY, BY STATES.

Tables showing by counties the reported cases of cerebrospinal meningitis, malaria, pellagra, poliomyelitis, smallpox, and typhoid fever are published under the names of these diseases. (See names of these and other diseases in the table of contents.)

The following monthly State reports include only those which were received during the current week. These reports appear each week as received.

State.	Cerebrospinal meningitis.	Diphtheria.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
SEPTEMBER, 1919.									
California.....	1	195	258	169	2	4	155	127	118
Delaware.....		8	2	3			10		31
Illinois.....	16	912	269	166		58	605	108	274
Indiana.....	3	194		30		5	257	88	147
Iowa.....	2	97				2	101	31	
Kansas.....	3	126			1	12	146	72	145
Minnesota.....	4	390	1	46		12	124	47	88
Mississippi.....		382	17,808	57	496	10	143	84	512
Montana.....	1	16		6		1	51	14	50
North Dakota.....		44		5			55	4	28
Ohio.....	16	653	12	164		8	423	119	454
Oregon.....	1	13		12		1	57	96	12
Washington.....	2	80		7		2	197	200	70
Wyoming.....		10		2			11	4	15

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during September, 1919, to other State health departments by department of health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Tuberculosis: Mayo Clinic, Rochester, Olmsted County.	Beaver Dam, Dodge County, Wis.; Elwood, Madison County, Ind.	2 tuberculosis cases left Mayo Clinic for homes.
Typhoid fever: Worrel Hospital, Rochester, Olmsted County.	Sioux City, Woodbury County, Iowa.	Patient with typhoid came from Iowa to Rochester, Minn.
Scambler, Section 35, Ottertall County.	Popular Bluff, Butler County, Mo.....	Patient was staying at a home in Missouri where there was a recent typhoid case.
Colonial Hospital, Rochester, Olmsted County.	Farm, Section 18, Township 131, Range 89, near Pretty Rock, Grant County, N. Dak.	Lived on farm in North Dakota 3 weeks previous to first symptoms.
Duluth, St. Louis County.....	Farm, 8 miles north of Grand Forks, N. Dak.	Employed on farm in North Dakota 3 weeks previous to first symptoms.
St. Paul Bureau of Health, St. Paul, Ramsey County.	Nashville, Davidson County, Tenn....	Was living in Nashville, Tenn., 3 weeks previous to first symptoms.
	Webster, Burnett County, Wis.....	Patient was living at Webster, Wis., 3 weeks previous to first symptoms.
	United States Public Health Service..	Patient was on a boat trip down the Mississippi River 3 weeks previous to first symptoms.

ANTHRAX.

California, Illinois, Maryland, Mississippi, and Montana.

During the month of September, 1919, three cases of anthrax were reported in California, one case was reported in Illinois, one in Mississippi, and one in Montana. During the week ended October 18, 1919, one case was reported at Baltimore, Md.

CEREBROSPINAL MENINGITIS.

State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
California:		Minnesota:	
San Francisco.....	1	Benton County—	
Illinois:		Sauk Rapids.....	2
Adams County—		Isanti County—	
Quincy.....	1	Springvale Township.....	1
Gallatin County.....	1	Renville County—	
Grundy County.....	1	Palmyra Township.....	1
Kane County—		Total.....	4
Aurora.....	2		
Cook County—		Montana:	
Chicago.....	6	Silver Bow County—	
Massac County.....	1	Butte.....	1
McLean County.....	1		
Perry County.....	1	Ohio:	
Saline County.....	1	Butler County.....	1
Winnebago County—		Cuyahoga County.....	4
Rockford.....	1	Highland County.....	1
Total.....	16	Huron County.....	1
Indiana:		Mahoning County.....	1
Allen County.....	1	Mercer County.....	1
Delaware County.....	1	Montgomery County.....	3
Shelby County.....	1	Putnam County.....	2
Total.....	3	Seneca County.....	1
Iowa:		Trumbull County.....	1
Guthrie County.....	1	Total.....	16
Polk County.....	1		
Total.....	2	Oregon:	
Kansas:		Portland.....	1
Saline County—		Washington:	
Salina.....	1	King County—	
Shawnee County—		Seattle.....	1
Topeka.....	1	Pierce County.....	1
Wyandotte County—		Total.....	2
Kansas City.....	1		
Total.....	3		

City Reports for Week Ended Oct. 18, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Attleboro, Mass.....	1		New York, N. Y.....	5	1
Baltimore, Md.....		1	Passaic, N. J.....		1
Boston, Mass.....	2	1	Philadelphia, Pa.....		1
Chattanooga, Tenn.....	1		Portland, Oreg.....	1	
Chicago, Ill.....	4	2	St. Louis, Mo.....	1	1
Fall River, Mass.....	1		Salt Lake City, Utah.....	1	1
Kansas City, Mo.....		1	San Francisco, Calif.....		1
Long Branch, N. J.....	1		Schenectady, N. Y.....	1	
Los Angeles, Calif.....	1		Trenton, N. J.....	1	1
Milwaukee, Wis.....	1		Wilkes-Barre, Pa.....	1	
Nashville, Tenn.....	1				

DIPHTHERIA.

See Telegraphic weekly reports from States, p. 2545; Monthly summaries by States, p. 2551; and Weekly reports from cities, p. 2570.

FAVUS.**Illinois—September, 1919.**

During the month of September, 1919, two cases of favus were reported in Illinois.

INFLUENZA.**Cases Reported by State Health Officers, September, 1919.**

	Cases.		Cases.
California.....	160	Montana.....	24
Connecticut.....	32	Nebraska.....	8
District of Columbia.....	82	New Jersey.....	133
Florida.....	83	Ohio.....	133
Illinois.....	597	Oregon.....	11
Indiana.....	62	Rhode Island.....	30
Iowa.....	6	South Carolina.....	17
Kansas.....	113	South Dakota.....	10
Louisiana.....	68	West Virginia.....	159
Maryland.....	355	Wisconsin.....	6
Massachusetts.....	226	Wyoming.....	1
Mississippi.....	1,166		

Cases Reported by State Health Officers, Week Ended Nov. 1, 1919.

Alabama.....	7	Iowa.....	5
Arkansas.....	7	Kansas.....	14
California.....	22	Louisiana.....	35
Connecticut.....	8	Maine.....	1
Delaware.....	2	Massachusetts.....	26
Florida.....	16	Montana.....	10
Georgia.....	30	New Jersey.....	29
Illinois.....	60	New York.....	32
Indiana.....	45	Washington.....	2

LEPROSY.**Houston, Tex., Week Ended Oct. 18, 1919.**

During the week ended October 18, 1919, one case of leprosy was reported at Houston, Tex.

LETHARGIC ENCEPHALITIS.**California and Illinois.**

During the month of September, 1919, one case of lethargic encephalitis was reported in California, and one at Chicago, Ill.

MALARIA.

State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
California:		Illinois—Continued.	
Alameda County—		Wabash County.....	6
Alameda.....	2	Whiteside County.....	6
Berkeley.....	1	Williamson County.....	3
Oakland.....	1	White County.....	2
Butte County—		Woodford County.....	1
Chico.....	3	Total.....	269
Gridley.....	1		
Colusa County.....	7	Kansas:	
Colusa.....	7	Butler County—	
Contra Costa County—		Douglas.....	1
Walnut Creek.....	1	Shawnee County—	
El Dera County.....	4	Topeka.....	1
Fresno County.....	1	Wyandotte County—	
Kern County.....	5	Kansas City.....	2
Kings County.....	2	Total.....	4
Los Angeles County—			
Los Angeles.....	3	Minnesota:	
Placer County.....	12	Hennepin County—	
Sacramento County.....	6	Minneapolis.....	1
Sacramento.....	1		
San Bernardino County—		Mississippi:	
Redlands.....	1	Adams County.....	94
San Francisco.....	3	Aleorn County.....	149
Shasta County.....	155	Amite County.....	112
Kennett.....	3	Attala County.....	151
Redding.....	14	Benton County.....	20
Solano County—		Bohvar County.....	1,486
Benicia.....	1	Calhoun County.....	150
Navy yard.....	1	Carroll County.....	263
Tehama County.....	17	Chickasaw County.....	114
Red Bluff.....	1	Choctaw County.....	76
Tulare County—		Claiborne County.....	122
Visalia.....	1	Clarke County.....	91
Tuolumne County.....	1	Clay County.....	144
Yolo County.....	3	Coahoma County.....	1,040
Total.....	258	Copiah County.....	232
		Covington County.....	71
Delaware:		De Soto County.....	115
Dover.....	2	Forrest County.....	71
		Franklin County.....	96
Illinois:		George County.....	33
Adams County—		Greene County.....	70
Quincy.....	1	Grenada County.....	56
Bureau County.....	10	Hancock County.....	145
Cass County.....	2	Harrison County.....	41
Christian County—		Hinds County.....	354
Kincaid.....	1	Holmes County.....	776
Clay County.....	4	Humphreys County.....	236
Clinton County.....	14	Issaquena County.....	156
Douglas County.....	2	Itawamba County.....	43
Effingham County.....	1	Jackson County.....	35
Fayette County.....	2	Jasper County.....	112
Greene County.....	4	Jefferson County.....	164
Franklin County.....	43	Jefferson Davis County.....	30
Hamilton County.....	5	Jones County.....	231
Hancock County.....	1	Kemper County.....	101
Henderson County.....	3	Lafayette County.....	219
Jackson County.....	11	Lamar County.....	94
Jasper County.....	1	Lauderdale County.....	98
Jefferson County.....	5	Lawrence County.....	128
Johnson County.....	10	Leake County.....	145
Kane County.....	4	Lee County.....	406
Madison County.....	5	Leflore County.....	451
Marshall County.....	12	Lincoln County.....	149
Massac County.....	15	Lowndes County.....	124
Mercer County.....	16	Madison County.....	109
Morgan County.....	20	Marion County.....	205
McLean County.....	5	Marshall County.....	121
Perry County.....	6	Monroe County.....	265
Pike County.....	5	Montgomery County.....	100
Pulaski County.....	4	Neshoba County.....	85
Randolph County.....	5	Newton County.....	55
Saline County.....	10	Noxubee County.....	137
Sangamon County.....	2	Oktibbeha County.....	104
St. Clair County.....	3	Panola County.....	262
Union County.....	25		

MALARIA—Continued.**State Reports for September, 1919—Continued.**

Place.	New cases reported.	Place.	New cases reported.
Mississippi—Continued.		Mississippi—Continued.	
Pearl River County.....	78	Warren County.....	365
Perry County.....	126	Washington County.....	420
Pike County.....	47	Wayne County.....	78
Pontotoc County.....	200	Webster County.....	83
Prentiss County.....	181	Wilkinson County.....	67
Quitman County.....	503	Winston County.....	227
Rankin County.....	76	Yalobusha County.....	140
Scott County.....	159	Yazoo County.....	674
Sharkey County.....	454		
Simpson County.....	104	Total.....	17,808
Smith County.....	103		
Stone County.....	40	Ohio:	
Sunflower County.....	1,207	Hocking County.....	1
Tallahatchie County.....	776	Meigs County.....	2
Tate County.....	384	Richland County.....	2
Tipah County.....	78	Summit County.....	3
Tishomingo County.....	104	Warren County.....	1
Tunica County.....	496	Wyandot County.....	3
Union County.....	138		
Walthall County.....	34	Total.....	12

City Reports for Week Ended Oct. 18, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....	1	.....	Montgomery, Ala.....	2	1
Birmingham, Ala.....	1	1	Morristown, N. J.....	1	.....
Brunswick, Ga.....	1	.....	Newark, N. J.....	1	.....
Charleston, S. C.....	.....	1	New Orleans, La.....	1	1
Columbus, Ga.....	4	2	Pine Bluff, Ark.....	4	.....
Dallas, Tex.....	7	1	Rome, Ga.....	1	.....
Little Rock, Ark.....	6	.....	Savannah, Ga.....	6	4
Memphis, Tenn.....	2	2	Tuscaloosa, Ala.....	4	.....

MEASLES.

See Telegraphic weekly reports from States, p. 2545; Monthly summaries by States, p. 2551; and Weekly reports from cities, p. 2570.

PELLAGRA.**State Reports for September, 1919.**

Place.	New cases reported.	Place.	New cases reported.
California:		Mississippi—Continued.	
Los Angeles County—		Carron County.....	6
Los Angeles.....	1	Chickasaw County.....	14
Sonoma County.....	1	Clay County.....	7
Total.....	2	Coahoma County.....	45
		Copiah County.....	2
Kansas:		Covington County.....	1
Geary County—		De Soto County.....	6
Junction City.....	1	Forest County.....	2
		George County.....	3
Mississippi:		Harrison County.....	1
Adams County.....	5	Hinds County.....	28
Alcorn County.....	8	Holmes County.....	13
Amite County.....	1	Humphreys County.....	6
Attala County.....	2	Issaquena County.....	3
Bolivar County.....	64	Itawamba County.....	5
Calhoun County.....	1	Jasper County.....	6
		Jones County.....	6

PELLAGRA—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Mississippi—Continued.		Mississippi—Continued.	
Kemper County.....	2	Pontotoc County.....	3
Lafayette County.....	3	Prentiss County.....	8
Lamar County.....	3	Quitman County.....	12
Lauderdale County.....	1	Scott County.....	3
Lawrence County.....	1	Sharkey County.....	7
Leake County.....	5	Simpson County.....	1
Lee County.....	13	Sunflower County.....	20
Leflore County.....	3	Tallahatchie County.....	10
Lincoln County.....	14	Tate County.....	1
Lowndes County.....	3	Tippah County.....	5
Madison County.....	6	Tishomingo County.....	6
Marion County.....	3	Tunica County.....	23
Marshall County.....	7	Union County.....	4
Monroe County.....	9	Walthall County.....	4
Montgomery County.....	2	Warren County.....	13
Neshoba County.....	4	Washington County.....	22
Noxubee County.....	4	Webster County.....	2
Okfuskee County.....	2	Winston County.....	1
Panola County.....	3	Yazoo County.....	20
Pearl River County.....	5	Total.....	406
Pike County.....	4		

City Reports for Week Ended Oct. 18, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....		2	Dallas, Tex.....	1	
Austin, Tex.....		1	Fort Worth, Tex.....	1	
Birmingham, Ala.....	1	1	Lexington, Ky.....		1
Charleston, S. C.....		1	Little Rock, Ark.....	1	
Charlotte, N. C.....	1	1	Mobile, Ala.....		1
Cincinnati, Ohio.....	1	1	Oklahoma City, Okla.....		1

PLAGUE.

New Orleans, La.

During the week ended November 1, 1919, four cases of plague, with one death, were reported at New Orleans, La.

PNEUMONIA.

City Reports for Week Ended Oct. 18, 1919.

Place.	Lobar.		All forms.		Place.	Lobar.		All forms.	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.
Alliance, Ohio.....		1			Buffalo, N. Y.....	3	3		
Ann Arbor, Mich.....	1				Burlington, Vt.....		1		
Atchison, Kans.....	1				Cambridge, Mass.....	1			
Atlanta, Ga.....				3	Charleston, S. C.....				1
Attleboro, Mass.....	2				Charlotte, N. C.....		1		
Beaumont, Tex.....			1		Chelsea, Mass.....	2			
Bellefonte, N. J.....	1				Chicago, Ill.....			65	24
Benton Harbor, Mich.....		1			Chicopee, Mass.....	2			
Birmingham, Ala.....				5	Cincinnati, Ohio.....		3		
Bloomington, Ind.....	1				Cleveland, Ohio.....			9	14
Boston, Mass.....	26	97			Columbus, Ga.....	1	1		
Brookline, Mass.....	1				Columbus, Ohio.....		1		

PNEUMONIA—Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

Place.	Lobar.		All forms.		Place.	Lobar.		All forms.	
	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.
Council Bluffs, Iowa.....		2			New Bedford, Mass.....		1		
Covington, Ky.....		1			New Britain, Conn.....	1			
Dallas, Tex.....			5	1	New Haven, Conn.....			1	
Dayton, Ohio.....	1	1			New Orleans, La.....		1		
Denver, Colo.....		2		6	Newton, Mass.....	1			
Detroit, Mich.....	12	8	15	13	New York, N. Y.....			29	80
Duluth, Minn.....	2	1			Niagara Falls, N. Y.....	1			
East Chicago, Ind.....					Oakland, Calif.....			4	1
East Orange, N. J.....				1	Oak Park, Ill.....	2			
Englewood, N. J.....				1	Oklahoma City, Okla.....		1	2	3
Evanston, Ill.....	1				Olean, N. Y.....		1		
Everett, Mass.....	1				Omaha, Nebr.....				4
Fall River, Mass.....	1				Patterson, N. J.....			3	
Flint, Mich.....		1			Peoria, Ill.....		2		
Fort Worth, Tex.....	2	2			Petersburg, Va.....		1		
Fremont, Ohio.....		1			Philadelphia, Pa.....	40	15		
Galesburg, Ill.....					Pittsfield, Mass.....	2	1		
Galveston, Tex.....				1	Portland, Oreg.....				1
Gloucester, N. J.....	1				Quincy, Ill.....		1		
Grand Rapids, Mich.....	1				Racine, Wis.....		2		
Hammond, Ind.....		1			Reno, Nev.....		2		
Harrison, N. J.....	1				Riverside, Calif.....		1		
Hartford, Conn.....		1			Roanoke, Va.....	1	1		
Haverhill, Mass.....	1	1			Rochester, N. Y.....	2			
Highland Park, Mich.....					Rome, Ga.....	1			
Hoboken, N. J.....				1	Rome, N. Y.....			1	
Ithaca, N. Y.....		1			Saginaw, Mich.....			1	
Jamestown, N. Y.....	1				St. Joseph, Mo.....	1			
Janesville, Wis.....					St. Paul, Minn.....		3		
Jersey City, N. J.....			4		Salt Lake City, Utah.....				
Kansas City, Kans.....	1				San Bernardino, Calif.....		1		
Kansas City, Mo.....			4	6	San Diego, Calif.....	1			
Kearny, N. J.....					Sandusky, Ohio.....	1			
Lackawanna, N. Y.....	1				San Francisco, Calif.....		3		
La Crosse, Wis.....	1	1			Savannah, Ga.....				1
Lawrence, Mass.....	2	1			Schenectady, N. Y.....	1			
Leominster, Mass.....	1	1			Sioux Falls, S. Dak.....	3	3		
Lexington, Ky.....	1				Somerville, Mass.....	5	4		
Los Angeles, Calif.....			12	6	Springfield, Mass.....		2		
Louisville, Ky.....			3	3	Syracuse, N. Y.....				3
Lowell, Mass.....	1	1			Taunton, Mass.....	3	2		
Lynn, Mass.....	1				Terre Haute, Ind.....				3
Macon, Ga.....					Trenton, N. J.....	3	2		
Marquette, Wis.....		1			Troy, N. Y.....		1		
Memphis, Tenn.....		2			Washington, D. C.....				7
Milwaukee, Wis.....		2			West Hoboken, N. J.....		1		
Minneapolis, Minn.....				3	West Orange, N. J.....	1	1		
Montclair, N. J.....	1	1			Wilmington, Del.....		2		
Montgomery, Ala.....		1			Worcester, Mass.....	2	2		
Morgantown, W. Va.....	1				Yonkers, N. Y.....	1	1		
Newark, N. J.....	10	2							

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
California:		Illinois—Continued.	
Fresno County.....	1	Clark County—	
Lake County.....	1	Parker township.....	1
Orange County.....	1	Cook County—	
Stanislaus County.....	1	Chicago.....	18
Total.....	4	Summit.....	1
Illinois:		De Kalb County—	
Bureau County—		Kirkland.....	1
Berlin township.....	1	Du Page County—	
Malden.....	1	Elmhurst.....	1
Champaign County—		West Chicago.....	1
Champaign.....	1	Effingham County—	
		Effingham.....	1
		Montrose.....	1

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Illinois—Continued.		Kansas—Continued.	
Ford County—		Morton County—	
Gibson City—	1	Elkhart—	1
Fulton County—		Osage County—	
Vermont—	1	London—	1
Woodland township—	1	Ottawa County—	
Henry County—		Wells—	1
Kewanee—	1	Reno County—	
Jo Daviess County—		Turon—	1
Rawlins township—	1	Sedgewick County—	
Scales Mound—	1	Wichita—	1
Kane County—		Seward County—	
Aurora—	1	Liberal—	1
Lake County—		Total	13
Highland Park—	1		
LaSalle County—		Minnesota:	
Oglesby—	1	Beltrami County—	
Osage township—	1	Nymore—	1
Logan County—		Eckles township—	1
Eminence Township—	1	Cass County—	
Madison County—	1	Wilson township—	1
Marshall County—		Dodge County—	
Hopevell Township—	1	Milton township—	1
Wenona—	1	Hennerin County—	
McDonough County—		Minneapolis—	1
Industry—	1	Kittson County—	
McHenry County—		Poppleton township—	1
Harvard—	1	Marshall County—	
Ogle County—		Constock—	1
Hazelhurst—	1	Olmsd County—	
Peoria County—		Haverhill township—	1
Peoria—	1	Martin County—	
Piatt County—		Fraser township—	1
Bement—	1	Pipestone County—	
Wellington—	1	Jasper—	1
Putnam County—		Stearns County—	
Magnolia—	1	St. Cloud—	1
Magnolia Township—	1	Watsonwan County—	
St. Clair County—		Madelia—	1
Mascoutah Township—	1	Total	12
Saline County—			
Eldorado—	1	Mississippi:	
Sangamon County—	1	Attala County—	1
Warren County—		Copiah County—	2
Monmouth—	1	Covington County—	1
Whiteside County—		Jackson County—	1
Erie—	1	Lafayette County—	1
Williamson County—		Madison County—	1
Herrin—	1	Montgomery County—	1
Winnebago County—		Warren County—	1
Rockford—	2	Washington County—	1
Total	58	Total	10
Indiana:		Montana:	
Elkhart County—	1	Garfield County—	
Kosciusko County—	1	Jordan (R. D.)—	1
Lake County—	1		
Vanderburg County—	1	Ohio:	
Warriack County—	1	Cuyahoga County—	2
Total	5	Defiance County—	2
		Fayette County—	1
Iowa:		Fulton County—	1
Howard County—	1	Licking County—	1
Marshall County—	1	Logan County—	1
Total	2	Total	8
Kansas:		Oregon:	
Clay County—		Portland—	1
Bala—	1		
Franklin County—		Washington:	
Lane—	1	Clarke County—	
Hamilton County—		Vancouver—	1
Syracuse—	1	Spokane County—	
Harvey County—		Spokane—	1
Sedgewick—	1	Total	2
Kingman County—			
Cleveland—	2		

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.**City Reports for Week Ended Oct. 18, 1919.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.	3	2	New York, N. Y.	2	1
Brockton, Mass.	1	.....	Richmond, Va.	1	.....
Dallas, Tex.	1	.....	Salt Lake City, Utah.	1	.....
Detroit, Mich.	1	.....	Spartanburg, S. C.	1	.....
Los Angeles, Calif.	1	.....	Toledo, Ohio.	3	.....
Lowell, Mass.	2	.....	Trenton, N. J.	1	1
Milwaukee, Wis.	1	.....	Worcester, Mass.	1	.....
Morgantown, W. Va.	1	.....		

RABIES IN ANIMALS.**Kansas City, Mo., and Reno, Nev.**

During the week ended October 18, 1919, five cases of rabies in animals were reported at Kansas City, Mo., and one case was reported at Reno, Nev.

RABIES IN MAN.**Salt Lake City, Utah, Week Ended October 18, 1919.**

During the week ended October 18, 1919, one death from rabies was reported at Salt Lake City, Utah.

ROCKY MOUNTAIN SPOTTED OR TICK FEVER.**Rock Springs, Mont.—September, 1919.**

During the month of September, 1919, one case of Rocky Mountain spotted or tick fever was reported at Rock Springs, Custer County, Mont.

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 2545; Monthly summaries by States, p. 2551; and Weekly reports from cities, p. 2570.

SMALLPOX.**State Reports for September, 1919—Vaccination Histories.**

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
California:						
Alameda County—						
Oakland.	2	.....	.....	1	1	.....
Contra Costa County—						
Martinez.	1	.....	.....	.....	1	.....
Del Norte County.	1	.....	.....	.....	1	.....
Fresno County.	2	.....	.....	.....	2	.....
Humboldt County.	31	.....	.....	.....	23	8
Arcata.	5	.....	.....	.....	5	.....
Blue Lake.	1	.....	.....	.....	1	.....
Eureka.	21	.....	.....	1	16	4
Ferndale.	1	.....	.....	.....	1	.....

SMALLPOX—Continued.

State Reports for September, 1919—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
California—Continued.						
Imperial County.....	1					
Brawley.....	1		1			
Kings County—						
Hanford.....	1				1	
Los Angeles County—						
Los Angeles.....	5				5	
Pasadena.....	2				2	
Whittier.....	2					2
Monterey County.....	1				1	
Monterey.....	1					1
Salinas.....	4			3	1	
Napa County.....	2				1	1
San Bernardino County.....	1			1	1	
Redlands.....	1				1	
San Diego County—						
San Diego.....	2				2	
San Francisco.....	6				6	
San Joaquin County.....	5				5	
Lodi.....	2				2	
Stockton.....	3				3	
Santa Barbara County.....	1					1
Santa Maria.....	5				4	1
Santa Clara County.....	2		1		1	
Santa Cruz County—						
Santa Cruz.....	8				8	
Shasta County.....	1				1	
Solano County.....	3				3	
Sonoma County.....	1			1		
Ventura County—						
Fillmore.....	1			1		
Total.....	127		2	7	99	19
Kansas:						
Anderson County—						
Garnett.....	1					1
Atchison County—						
Atchison.....	1				1	
Barber County—						
Medicine Lodge.....	1					1
Butler County—						
El Dorado.....	2				1	1
Cloud County—						
Concordia.....	1				1	
Crawford County—						
Walnut.....	3					3
Gross.....	4		1		3	
Pittsburg.....	1					1
Douglas County—						
Lawrence (R. F. D.).....	1				1	
Greenwood County—						
Virgil.....	1				1	
Labette County—						
Parsons.....	3		1		1	1
Leavenworth County—						
Jarbo.....	5		1			4
Leavenworth.....	3				3	
Meade County—						
Meade (R. F. D.).....	1					1
Montgomery County—						
Correyville.....	1					1
Independence.....	1					1
Norton County—						
Norton.....	7				6	1
Phillips County—						
Phillipsburg.....	7				5	2
Rawlins County.....						
Achilles.....	5				1	4
Herndon.....	7					7
Reno County—						
Haven.....	1					1

SMALLPOX—Continued.

State Reports for September, 1919—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Kansas—Continued.						
Rooks County—						
Paleo.....	1				1	
Sedgwick County—						
Maize.....	2				2	
Wichita.....	2					2
Smith County—						
Reamsville.....	5					5
Sumner County—						
Wellington.....	1				1	
Thomas County—						
Oakley.....	1					1
Wilson County—						
Guilford.....	2					2
Benedict.....	1					1
Total.....	72		3		28	41
Minnesota:						
Becker County—						
Lake Park.....	1				1	
Callaway.....	1					1
Carver County—						
San Francisco township.....	1			1		
Dakota County—						
South St. Paul.....	4				4	
Faribault County—						
Blue Earth.....	1				1	
Hennepin County—						
Minneapolis.....	14			2	12	
Hubbard County—						
Park Rapids.....	2				2	
Kanabec County—						
Mora.....	1				1	
Meeker County—						
Litchfield.....	1				1	
Ottertail County—						
Inman township.....	1			1		
Ramsey County—						
St. Paul.....	12				12	
Rose township.....	2				2	
Redwood County—						
West Line township.....	1			1		
Stearns County—						
Waite Park.....	1				1	
St. Cloud.....	2			1	1	
St. Louis County—						
Chisholm.....	1				1	
Wadena County—						
Wadena.....	1				1	
Total.....	47			6	40	1
Montana:						
Cascade County—						
Great Falls.....	1				1	
Fergus County—						
Lewistown (1 R. D.).....	13				2	
Stanford (R. D.).....	1			1		
Flathead County—						
Polson.....	1				1	
Lewis and Clark County—						
Helena.....	1				1	
Rosebud County—						
Castle Rock.....	1				1	
Forsyth.....	1				1	
Rosebud.....	5				5	
Total.....	14			1	12	1

^a One had smallpox three years ago.

SMALLPOX—Continued.

State Reports for September, 1919—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Ohio:						
Athens County.....	3	.....	.....	.....	.....	3
Auglaize County.....	1	.....	.....	.....	1	.....
Butler County.....	4	.....	.....	.....	3	1
Crawford County.....	1	.....	.....	.....	1	.....
Cuyahoga County.....	14	.....	.....	.....	.....	14
Delaware County.....	6	.....	.....	.....	.....	6
Fayette County.....	2	.....	.....	.....	.....	2
Hamilton County.....	15	.....	.....	.....	2	13
Hancock County.....	1	.....	1	.....	.....	.....
Jefferson County.....	3	.....	.....	.....	2	1
Knox County.....	2	.....	.....	.....	1	1
Lawrence County.....	5	.....	.....	.....	4	1
Lorain County.....	2	.....	.....	.....	2	.....
Mahoning County.....	13	.....	.....	.....	4	9
Marion County.....	4	.....	.....	.....	.....	4
Mercer County.....	5	.....	.....	.....	.....	5
Muskingum County.....	2	.....	.....	.....	.....	2
Pickaway County.....	17	.....	.....	.....	11	6
Ross County.....	2	.....	.....	.....	1	1
Seloto County.....	2	.....	.....	.....	1	1
Seneca County.....	1	.....	.....	.....	.....	1
Stark County.....	10	.....	.....	.....	1	9
Summit County.....	2	.....	1	1	.....	.....
Trumbull County.....	1	.....	.....	.....	1	.....
Wood County.....	1	.....	.....	.....	.....	1
Total.....	119	.....	2	1	35	81

State Reports for September, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Illinois:					
Champaign County.....	1	.....	Illinois—Continued.		
Clark County—	.....	.....	Perry County.....	1	.....
West Union.....	1	.....	Rock Island County—	.....	.....
Cook County—	.....	.....	Moline.....	1	.....
Chicago.....	5	.....	Reynolds.....	3	.....
De Kalb County.....	1	.....	St. Clair County.....	2	.....
Edgar County—	.....	.....	Vermillion County.....	1	.....
Edgar Stcp.....	1	.....	Jamaica.....	1	.....
Fayette County—	.....	.....	Warren County—	.....	.....
Long Grove.....	1	.....	Monmouth.....	1	.....
Greene County—	.....	.....	Williamson County—	.....	.....
Kane township.....	1	.....	Marion.....	3	.....
Roodhouse.....	73	.....	Total.....	198	.....
Hamilton County—	.....	.....	Indiana:		
McLeansboro.....	2	.....	Allen County.....	1	.....
McLeansboro town-	.....	.....	Cass County.....	5	.....
ship.....	2	.....	Elkhart County.....	5	.....
Johnson County.....	2	.....	Grant County.....	1	.....
Hamilton County.....	69	.....	Henry County.....	1	.....
Kankakee County.....	2	.....	Howard County.....	9	.....
Momence.....	2	.....	Huntington County.....	5	.....
Knox County.....	2	.....	Jasper County.....	1	.....
Galesburg.....	1	.....	Kosciusko County.....	1	.....
Macoupin County—	.....	.....	Lake County.....	4	.....
Cahokia township.....	9	.....	Laporte County.....	1	.....
Mason County—	.....	.....	Madison County.....	2	.....
Havana.....	1	.....	Marion County.....	1	.....
Mercer County.....	3	.....	Pike County.....	2	.....
Perry township.....	1	.....	Ripley County.....	5	.....
Moultrie County—	.....	.....	Steuben County.....	4	.....
Sullivan.....	1	.....	St. Joseph County.....	1	.....
Peoria County.....	4	.....	Tippecanoe County.....	18	.....

SMALLPOX—Continued.

State Reports for September, 1919—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Indiana—Continued.			Oregon—Continued.		
Vanderburg County.....	19		Multnomah County.....	1	
Vigo County.....	1		Tillamook County.....	1	
Warren County.....	1		Umatilla County.....	8	
Total.....	88		Union County.....	3	
			Portland.....	50	
Iowa:			Total.....	96	
Audubon County.....	1		Washington:		
Benton County.....	1		Chelan County.....	2	
Blackhawk County.....	3		Garfield County.....	9	
Boone County.....	1		Grays Harbor County—		
Hardin County.....	5		Aberdeen.....	2	
Harrison County.....	2		Cosmopolis.....	1	
Iowa County.....	1		Island County.....	2	
Keokuk County.....	1		King County.....	14	
Kossuth County.....	3		Bothell.....	1	
Polk County.....	6		Auburn.....	1	
Scott County.....	5		Seattle.....	39	
Shelby County.....	1		Kitsap County.....	2	
Sioux County.....	1		Port Orchard.....	2	
Total.....	31		Kittitas County.....	1	
			Roslyn.....	1	
Mississippi:			Lewis County—		
Bolivar County.....	26		Winlock.....	33	
Coahoma County.....	12		Lincoln County.....	3	
De Soto County.....	3		Harrington.....	1	
Hinds County.....	1		Pierce County.....	8	
Kemper County.....	1		Puyallup.....	3	
Lauderdale County.....	1		Tacoma.....	1	
Leake County.....	3		Skagit County.....	2	
Leflore County.....	4		Snohomish County.....	11	
Lincoln County.....	1		Spokane County.....	3	
Pontotoc County.....	4		Rockford.....	7	
Smith County.....	14		Spokane.....	24	
Sunflower County.....	3		Thurston County—		
Tallahatchie County.....	5		Olympia.....	3	
Tunica County.....	1		Walla Walla County.....	1	
Union County.....	1		Walla Walla.....	1	
Warren County.....	1		Whatcom County.....	2	
Washington County.....	1		Bellingham.....	14	
Total.....	84		Whitman County—		
			Colfax.....	1	
North Dakota:			Pullman.....	1	
Harvey.....	1		Yakima County.....	3	
Napoleon.....	3		Yakima.....	1	
Total.....	4		Total.....	290	
			Wyoming:		
Oregon:			Albany County.....	2	
Clackamas County.....	18		Carbon County.....	1	
Clatsop County.....	1		Niobrara County.....	1	
Lane County.....	11		Total.....	4	
Linn County.....	2				
Marion County.....	1				

City Reports for Week Ended Oct. 18, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alameda, Calif.....	2		Denver, Colo.....	16	
Atlanta, Ga.....	1		Detroit, Mich.....	2	
Bellingham, Wash.....	4		Eureka, Calif.....	3	
Billings, Mont.....	1		Fond du Lac, Wis.....	3	
Boise, Idaho.....	1		Fort Worth, Tex.....	1	
Boston, Mass.....	1		Green Bay, Wis.....	1	
Canton, Ohio.....	1		Ironwood, Mich.....	5	
Chicago, Ill.....	1		Kansas City, Mo.....	2	
Cleveland, Ohio.....	3		Kokomo, Ind.....	8	
Colorado Springs, Colo.....	1		La Fayette, Ind.....	6	
Columbus, Ga.....	1		Lincoln, Nebr.....	4	
Dallas, Tex.....	10		Los Angeles, Calif.....	4	
Davenport, Iowa.....	9		Marshalltown, Iowa.....	5	

SMALLPOX—Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Memphis, Tenn.	1	.....	Racine, Wis.	2	.....
Milwaukee, Wis.	6	.....	St. Joseph, Mo.	4	.....
Minneapolis, Minn.	4	.....	St. Paul, Minn.	6	.....
Mobile, Ala.	1	.....	San Diego, Calif.	1	.....
Montgomery, Ala.	1	.....	Seattle, Wash.	36	.....
Morgantown, W. Va.	1	.....	Sioux City, Iowa	1	.....
Ogden, Utah.	1	.....	South Bend, Ind.	7	.....
Omaha, Nebr.	1	.....	Spokane, Wash.	8	.....
Oshkosh, Wis.	1	.....	Walla Walla, Wash.	10	.....
Peoria, Ill.	1	.....	Wausau, Wis.	3	.....
Portland, Oreg.	6	.....	Yakima, Wash.	2	.....
Quincy, Ill.	1	.....	Youngstown, Ohio	5	.....

TETANUS.

City Reports for Week Ended Oct. 18, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baton Rouge, La.	1	.....	Minneapolis, Minn.	.....	1
Beaumont, Tex.	.....	1	Newark, N. J.	1	.....
Cordington, Ky.	.....	1	New York, N. Y.	.....	1
Los Angeles, Calif.	2	.....	Philadelphia, Pa.	2	.....
Memphis, Tenn.	.....	1	St. Louis, Mo.	2	.....

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 2545, and Weekly reports from cities, 2570.

TYPHOID FEVER.

State Reports for September, 1919.

Place.	New cases reported.	Place.	New cases reported.
California:		California—Continued.	
Alameda County	1	Modoc County	1
Oakland	7	Orange County	1
Butte County—	.....	Anaheim	8
Chico	1	Placer County	1
Contra Costa County—	.....	Riverside County—	.....
Antioch	1	Hemet	1
Eldorado County	1	Perris	1
Placerville	2	Sacramento County	3
Fresno County	7	Sacramento	5
Clovis	1	San Bernardino County	1
Fresno	2	San Diego County	1
Selma	3	San Diego	4
Humboldt County	4	San Francisco	4
Eureka	2	San Joaquin County	3
Imperial County—	.....	Stockton	2
Brawley	2	San Luis Obispo County	2
Kings County—	.....	Santa Barbara County—	.....
Hanford	1	Santa Barbara	1
Lemoore	1	Santa Clara County	1
Los Angeles County	5	Mountain View	3
Long Beach	1	Palo Alto	2
Los Angeles	17	San Jose	1
Pasadena	2	Shasta County	1
Pomona	3	Stanislaus County	1
South Pasadena	1	Tulare County	1
Madera County	1	Dinuba	1
Merced County	1	Total	118
Merced	1		

TYPHOID FEVER—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Delaware:		Illinois—Continued.	
Wilmington.....	7	Livinston County—	
Wyoming.....	1	Fairbury.....	1
Dover.....	2	Logan County—	
Harrington.....	4	Elkhart.....	1
Milton.....	2	Macon County—	
Odessa.....	1	Decatur.....	2
Seaford.....	6	Friends Creek Township.....	1
Lewes.....	1	Macoupin County—	
Bridgeville.....	3	Virden.....	1
Delmar.....	1	Madison County.....	2
Centreville.....	1	East Alton.....	1
Middletown.....	2	Marion County.....	1
Total.....	31	Havana.....	2
Illinois:		Marshall County.....	1
Adams County.....	2	Massac County—	
Quincy.....	6	Metropolis.....	1
Cass County.....	2	McLean County.....	1
Champaign County.....	10	Bloomington.....	1
Broadland.....	2	McDonough County.....	4
Clark County—		Montgomery County—	
Marshall.....	4	Donnelson.....	1
Clay County.....	1	Witt.....	1
Xenia.....	1	Morgan County—	
Clinton County.....	1	Jacksonville.....	5
Coles County.....	1	Ogle County.....	1
Charleston.....	2	Peoria County—	
Mattoon.....	1	Peoria.....	4
Cook County.....	7	Perry County.....	5
Blue Island.....	1	Pike County.....	1
Berwyn.....	1	Spring Creek Township.....	2
Riverdale.....	1	Pulaski County.....	2
Chicago.....	30	Randolph County.....	1
Steger.....	1	Sparta.....	1
Thornton Township.....	1	Richland County—	
Crawford County.....	1	Olney.....	1
Oblong Township.....	1	Rock Island County—	
Cumberland County.....	1	Milan.....	1
De Witt County.....	2	Moline.....	2
Nixon Township.....	1	Rock Island.....	2
Douglas County.....	2	St. Clair County.....	3
Edwards County.....	1	Belleville.....	4
Elfincham County.....	1	Saline County.....	4
Beecher City.....	6	Harrisburg.....	1
Fayette County.....	1	Sangamon County—	
Landon Township.....	1	Springfield.....	1
Kaskaskia Township.....	2	Thayer.....	1
St. Elmo.....	3	Shelby County.....	2
Franklin County.....	6	Sigel.....	2
Fulton County.....	1	Stephenson County—	
Gallatin County.....	1	Freeport.....	2
Hamilton County.....	1	Tazewell County—	
Hancock County.....	2	Pekin.....	1
Henderson County—		Union County.....	8
Dallas City.....	1	Vermilion County—	
Henry County.....	2	Hoopeston.....	1
Iroquois County.....	4	Washington County.....	1
Jasper County.....	5	Johannesburg Township.....	7
Ste. Marie.....	4	White County.....	1
Jefferson County.....	6	Carmi.....	1
Jersey County.....	1	Grayville.....	1
Kane County—		Whiteside County—	
Aurora.....	3	Sterling.....	1
Batavia.....	1	Will County—	
Elgin.....	1	Joliet.....	2
Kankakee County.....	2	Joliet Township.....	2
Knox County—		Williamson County.....	5
Galesburg.....	17	Cambria.....	2
Lake County—		Winnebago County.....	1
Lake Forest.....	2	Total.....	274
North Chicago.....	1	Indiana:	
Waukegan.....	5	Allen County.....	1
La Salle County.....	1	Bartholomew County.....	1
La Salle.....	4	Blackford County.....	1
Oglesby.....	1	Brown County.....	1
Streator.....	1	Cass County.....	2
Lawrence County.....	2	Chert County.....	14
		Clay County.....	4

TYPHOID FEVER—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Indiana—Continued.		Kansas—Continued.	
Clinton County.....	1	Cherokee County—	
Dearborn County.....	1	Baxter Springs (2 R. F. D.).....	3
Decatur County.....	2	Oswego (R. F. D.).....	2
DeKalb County.....	4	Mineral.....	1
Delaware County.....	3	Hallowell (R. F. D.).....	1
Dubois County.....	2	Galena (3 R. F. D.).....	5
Elkhart County.....	3	Cowley County—	
Floyd County.....	1	Arkansas City.....	1
Fountain County.....	1	Winfield.....	2
Franklin County.....	1	Crawford County—	
Grant County.....	2	Franklin.....	1
Greene County.....	1	Pittsburg.....	4
Hamilton County.....	1	Dickinson County—	
Harrison County.....	2	Enterprise.....	1
Howard County.....	1	Doniphan County—	
Huntington County.....	9	Bendena.....	1
Jackson County.....	4	Douglas County—	
Jasper County.....	2	Lecomton.....	2
Jay County.....	6	Lawrence.....	1
Jennings County.....	1	Elk County—	
Johnson County.....	2	Howard.....	2
Knox County.....	1	Ellis County—	
Kosciusko County.....	1	Hayes.....	3
Lake County.....	4	Finney County—	
Laporte County.....	2	Garden City.....	3
Lawrence County.....	5	Ford County—	
Madison County.....	4	Spearsville.....	3
Marion County.....	6	Dodge City (R. F. D.).....	1
Martin County.....	5	Franklin County—	
Miami County.....	2	Ottawa.....	1
Noble County.....	2	Greenwood County—	
Owen County.....	5	Quincy.....	2
Parke County.....	3	Fall River.....	1
Perry County.....	3	Harper County—	
Posey County.....	2	Attica.....	1
Randolph County.....	1	Hodgeman County—	
Rush County.....	3	Jetmore.....	1
St. Joseph County.....	5	Jefferson County—	
Switzerland County.....	2	McLouth.....	1
Tippecanoe County.....	3	Kinman County—	
Vaudeburg County.....	6	Cunningham.....	1
Warren County.....	1	Kiowa County—	
Wayne County.....	7	Haviland.....	2
Total.....	17	Mullinsville.....	1
Kansas:		Labette County—	
Allen County—		Chetopa.....	1
Moran.....	1	Pearsons.....	2
La Harpe.....	1	Leavenworth County—	
Anderson County—		Leavenworth.....	1
Kinsaid.....	1	Linn County—	
Neosho Falls.....	1	La Cygne.....	1
Atchison County—		Centerville.....	1
Atchinson.....	1	Lyon County—	
Barton County—		Congress.....	1
Beaver.....	1	Emporia.....	2
Pawnee Rock.....	1	Marion County—	
Great Bend (4 R. F. D.).....	5	Burns.....	2
Bourbon County—		Peabody.....	1
Hiattville.....	1	Miami County—	
Brown County—		Paola.....	2
Hamlin.....	1	Osawatomie.....	1
Kickapoo.....	1	Mitchell County—	
Butler County—		Simpson.....	1
Elbing.....	1	Montgomery County—	
Towanda.....	1	Cherryville.....	4
Haskinsville.....	3	Coffeyville.....	5
Latham (RFD).....	1	Independence (R. F. D.).....	1
Douglass.....	1	Morris County—	
Augusta.....	3	Dunlap.....	1
Eldorado.....	5	Pawnee County—	
Chase County—		Larned.....	1
Clements.....	1	Garfield.....	1
Elmdale.....	1	Pratt County—	
Cottonwood Falls.....	1	Pratt.....	1
Strong City.....	1	Sawyer.....	1
		Reno County—	
		Hutchinson.....	4

TYPHOID FEVER—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Kansas—Continued.		Minnesota—Continued.	
Rice County—		Washington County—	
Sterling.....	2	Stillwater.....	1
Ellenwood.....	1	Watsonwan County—	
Russell County—		Madelia.....	1
Russell (R. F. D.).....	2	Wright County—	
Saline County—		Annandale.....	1
Salina.....	2	South Haven.....	1
Sedgewick County—		Total.....	88
Wichita.....	12		
Stafford County—		Mississippi:	
St. John.....	1	Adams County.....	4
Summer County—		Alcorn County.....	13
Perth.....	1	Amite County.....	7
Wellington.....	1	Attala County.....	6
Wilson County—		Benton County.....	2
Fredonia.....	1	Bolivar County.....	39
Wyandotte County—		Calhoun County.....	7
Kansas City.....	5	Carroll County.....	3
Total.....	145	Chikasa County.....	6
Minnesota:		Choctaw County.....	3
Carlton County—		Chairborne County.....	3
Cloquet.....	1	Clarke County.....	2
Casa County—		Clay County.....	9
Shingobee Township.....	1	Coahoma County.....	9
Chippewa County—		Copiah County.....	8
Montevideo.....	1	Covington County.....	14
Chisago County—		De Soto County.....	6
Branch Township.....	1	Forrest County.....	1
Clay County—		Franklin County.....	2
Georgetown.....	1	Greene County.....	4
Goodhue County—		Grenada County.....	2
Red Wing.....	1	Harrison County.....	4
Zumbrota.....	2	Hinds County.....	17
Minneola Township.....	1	Holmes County.....	7
Hennepin County—		Humphreys County.....	2
Minneapolis.....	8	Itawamba County.....	6
Itasca County—		Jackson County.....	4
Nashwauk.....	1	Jasper County.....	4
Klittson County—		Jefferson County.....	4
Hallock.....	1	Jefferson Davis County.....	1
Koochiching County—		Jones County.....	18
White Birch Township.....	1	Kemper County.....	9
Lyon County—		Lafayette County.....	21
Lucas Township.....	1	Lauderdale County.....	1
Marshall County—		Lawrence County.....	1
Oslo.....	1	Leake County.....	5
Stephen.....	1	Lee County.....	11
Warren.....	1	Leflore County.....	2
Marth County—		Lincoln County.....	11
Silver Lake Township.....	1	Lowndes County.....	4
Olmsted County—		Madison County.....	1
Rochester.....	1	Marion County.....	5
Ottertail County—		Marshall County.....	2
Fergus Falls.....	2	Monroe County.....	17
Pelican Rapids.....	1	Neshoba County.....	6
Pennington County—		Newton County.....	2
St. Hilaire.....	1	Noxubee County.....	2
Ramsey County—		Oktibbeha County.....	4
St. Paul.....	18	Opala County.....	11
North St. Paul.....	1	Pearl River County.....	1
Rice County—		Pike County.....	5
Fairbault.....	1	Pontotoc County.....	5
Roseau County—		Prentiss County.....	12
Roosevelt.....	2	Quitman County.....	4
Warroad.....	3	Rankin County.....	4
St. Louis County—		Scott County.....	13
Chisholm.....	1	Simpson County.....	3
Duluth.....	18	Smith County.....	4
Eveleth.....	2	Sunflower County.....	23
Proctor.....	3	Tallahatchie County.....	21
Virginia.....	1	Tate County.....	16
Carson Lake.....	1	Tippah County.....	11
Stuntz Township.....	1	Ti-homingo County.....	5
Stearns County—		Tunica County.....	10
St. Cloud.....	1	Union County.....	7
Wadena County—		Walthall County.....	1
Orton Township.....	1	Warren County.....	3

TYPHOID FEVER—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Mississippi—Continued.		Ohio—Continued.	
Washington County.....	9	Athens County.....	7
Webster County.....	1	Auglaize County.....	7
Wilkinson County.....	2	Belmont County.....	10
Winston County.....	4	Brown County.....	2
Yalobusha County.....	7	Butler County.....	6
Yazoo County.....	9	Carroll County.....	5
Total.....	512	Champaign County.....	3
Montana:		Clark County.....	5
Carbon County—		Clermont County.....	18
Bridger.....	1	Clinton County.....	2
Tracy.....	1	Columbiana County.....	4
Cascade County—		Co-horton County.....	1
Great Falls.....	8	Cuyahoga County.....	15
Sand Coulee.....	2	Darke County.....	1
Custer County—		Defiance County.....	5
Cartersville.....	1	Delaware County.....	4
Miles City (I. R. D.).....	2	Erle County.....	3
Dawson County—		Fairfield County.....	7
Glendive.....	1	Fayette County.....	1
Deer Lodge County—		Franklin County.....	7
Anaconda.....	2	Fulton County.....	1
Fergus County—		Geauga County.....	1
Lewiston.....	3	Greene County.....	2
Flathead County—		Guernsey County.....	14
Big Fork (R. D.).....	1	Hamilton County.....	8
Polson (R. D.).....	1	Hancock County.....	3
Granite County—		Hardin County.....	2
Hall.....	1	Highland County.....	5
Hill County—		Hocking County.....	5
Havre.....	1	Holmes County.....	3
Lewis and Clark County—		Huron County.....	7
Helena.....	3	Jackson County.....	5
Lincoln County—		Jefferson County.....	10
Libby.....	2	Knox County.....	9
Musselshell County—		Lake County.....	1
Roundup (R. D.).....	1	Lawrence County.....	12
Park County—		Licking County.....	4
Livingston.....	1	Logan County.....	8
Pray (R. D.).....	1	Lorain County.....	4
Phillips County—		Lucas County.....	13
Bowdoin.....	1	Mahoning County.....	3
Roosevelt County—		Marion County.....	3
Wolf Point (R. D.).....	4	Medina County.....	5
Silver Bow County—		Meigs County.....	2
Butte (I. R. D.).....	2	Mercer County.....	17
Stillwater County—		Malini County.....	3
Park City.....	1	Monroe County.....	13
Wibaux County—		Montgomery County.....	2
Wibaux (R. D.).....	1	Morrow County.....	3
Yellowstone County—		Muskingum County.....	1
Billings (I. R. D.).....	7	Ottawa County.....	1
Shepherd (R. D.).....	1	Paulding County.....	3
Total.....	50	Perry County.....	7
North Dakota:		Pickaway County.....	1
Minot.....	3	Pike County.....	3
Stutsman County.....	1	Portage County.....	2
Luverne.....	3	Preble County.....	3
Finley.....	1	Putnam County.....	3
Petersburg.....	1	Richland County.....	5
Wahpeton.....	1	Ross County.....	1
Mandan.....	1	Sandusky County.....	13
Grand Forks.....	3	Scioto County.....	4
Valley City.....	1	Seneca County.....	4
Crystal.....	2	Shelby County.....	11
Pembina.....	7	Stark County.....	12
Casselton.....	1	Summit County.....	19
Orioka.....	3	Trumbull County.....	7
Total.....	28	Tuscarawa County.....	8
Ohio:		Union County.....	1
Adams County.....	1	Vinton County.....	3
Allen County.....	24	Warren County.....	7
Ashland County.....	8	Washington County.....	3
Ashtabula County.....	3	Wayne County.....	1
		Williams County.....	10
		Wood County.....	454
		Total.....	

TYPHOID FEVER—Continued.

State Reports for September, 1919—Continued.

Place.	New cases reported.	Place.	New cases reported.
Oregon:			
Clackamas County.....	2	Pierce County—	
Jackson County.....	1	Tacoma.....	1
Josephine County.....	2	Skagit County.....	1
Klamath County.....	1	Burlington.....	2
Lane County.....	1	Snohomish County—	
Washington County.....	2	Monroe.....	1
Portland.....	3	Spokane County—	
Total.....	12	Spokane.....	2
Washington:			
Chelan County.....	5	Stevens County.....	4
Wenatchee.....	1	Walla Walla County.....	1
Clarke County—		Walla Walla.....	4
Camas.....	1	Whitman County—	
Vancouver.....	1	St. John.....	1
Washougal.....	1	Yakima County.....	18
Columbia County—		Toppenish.....	1
Dayton.....	2	Yakima.....	3
Ferry County.....	1	Total.....	70
Garfield County.....	1	Wyoming:	
Grays Harbor County—		Campbell County.....	2
Aberdeen.....	1	Carbon County.....	1
King County.....	4	Johnson County.....	1
Seattle.....	4	Niobrara County.....	3
Klickitat County.....	3	Park County.....	3
Lincoln County.....	1	Sheridan County.....	1
Davenport.....	1	Uinta County.....	2
Okanogan County.....	3	Washakie County.....	2
Pacific County.....	2	Total.....	15

City Reports for Week Ended Oct. 18, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Aberdeen, S. Dak.....	2		Erie, Pa.....	11	
Akron, Ohio.....	2		Fall River, Mass.....	1	
Allentown, Pa.....	1		Flint, Mich.....	2	
Ann Arbor, Mich.....	1		Fremont, Ohio.....	2	1
Arlington, Mass.....	1		Gloucester, N. J.....	1	
Ashtabula, Ohio.....	1		Grand Rapids, Mich.....	1	
Atlanta, Ga.....	3	1	Great Falls, Mont.....	3	
Baltimore, Md.....	11	3	Hancock, Mich.....	1	1
Bellingham, Wash.....	1		Harrisburg, Pa.....	2	
Boston, Mass.....	5		Highland Park, Mich.....	1	
Buffalo, N. Y.....	5		Holland, Mich.....	2	
Centralla, Ill.....	5		Houston, Tex.....	3	
Charleston, S. C.....	1	1	Indianapolis, Ind.....	1	
Chattanooga, Tenn.....	1	1	Jersey City, N. J.....	2	
Chelsea, Mass.....	1		Kansas City, Kans.....	1	
Chicago, Ill.....	6	1	Kansas City, Mo.....	3	
Chicopee, Mass.....	1		Kokomo, Ind.....	1	2
Cincinnati, Ohio.....	2		Lancaster, Ohio.....	2	1
Cleveland, Ohio.....	2		Leominster, Mass.....	1	
Coatesville, Pa.....	1		Lexington, Ky.....	1	
Coffeyville, Kans.....	1		Lima, Ohio.....	2	
Colorado Springs, Colo.....	1		Lincoln, Nebr.....	1	1
Columbia, S. C.....	1		Little Rock, Ark.....	2	
Columbus, Ohio.....	2	1	Los Angeles, Calif.....	10	
Covington, Ky.....	2		Louisville, Ky.....	2	
Dallas, Tex.....	2	1	Lowell, Mass.....	2	
Danville, Ill.....	1		Lynn, Mass.....	2	
Danville, Va.....	1	1	Macon, Ga.....	1	1
Dayton, Ohio.....	3		Memphis, Tenn.....	1	1
Decatur, Ill.....	1		Milwaukee, Wis.....	1	
Denver, Colo.....	3	1	Minneapolis, Minn.....	3	
Detroit, Mich.....	15	1	Nashville, Tenn.....	4	
Dover, N. H.....	1		Newark, N. J.....	3	2
Duluth, Minn.....	1	1	New Bedford, Mass.....	1	1
Durham, N. C.....	1		Newburyport, Mass.....	1	
Easton, Pa.....	3		New Castle, Pa.....	1	
El Paso, Tex.....	4		New Haven, Conn.....	1	1

TYPHOID FEVER—Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
New Orleans, La.	4	4	St. Paul, Minn.	1	1
Newton, Mass.	1	1	Salt Lake City, Utah	1	1
New York, N. Y.	23	5	Sandusky, Ohio.	1	1
North Tonawanda, N. Y.	1	1	Savannah, Ga.	2	1
Oklahoma City, Okla.	1	1	Sioux Falls, S. Dak.	1	1
Omaha, Nebr.	1	1	Somerville, Mass.	1	1
Pekin, Ill.	1	1	South Bend, Ind.	1	2
Peoria, Ill.	1	1	Springfield, Mass.	1	1
Philadelphia, Pa.	6	2	Springfield, Ohio	1	1
Pittsburgh, Pa.	3	1	Sunbury, Pa.	1	1
Pontiac, Mich.	1	1	Superior, Wis.	1	1
Portland, Me.	5	1	Syracuse, N. Y.	2	1
Portland, Oreg.	1	1	Terre Haute, Ind.	1	1
Portsmouth, Va.	1	1	Toledo, Ohio.	1	1
Poughkeepsie, N. Y.	1	1	Topeka, Kans.	1	1
Pueblo, Colo.	3	1	Trenton, N. J.	2	1
Reading, Pa.	8	1	Tuscaloosa, Ala.	1	1
Reno, Nev.	2	1	Uniontown, Pa.	1	1
Richmond, Va.	1	1	Waltham, Mass.	1	1
Roanoke, Va.	1	1	Washington, D. C.	8	1
Rochester, N. Y.	1	1	Wheeling, W. Va.	3	1
Rocky Mount, N. C.	1	1	Wichita, Kans.	3	1
Sacramento, Calif.	1	1	Wilkesburg, Pa.	1	1
Saginaw, Mich.	3	1	Williamsport, Pa.	1	1
St. Joseph, Mo.	1	1	Wilmington, Del.	2	1
St. Louis, Mo.	3	1	Yakima, Wash.	5	1

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Oct. 18, 1919.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Akron, Ohio	93,604	32	4	2			2		8	1
Alameda, Calif.	28,433	8							2	1
Albany, N. Y.	106,632		1				5		4	
Allentown, Pa.	65,109		11						2	
Alliance, Ohio.	19,581	5	1							
Alton, Ill.	23,783	6								
Altoona, Pa.	59,712		13		27		1		8	
Ann Arbor, Mich.	15,041	9	1							
Anniston, Ala.	14,326		2						1	
Ansonia, Conn.	16,954	2								
Appleton, Wis.	18,005	4							1	1
Arlington, Mass.	13,073	5					1			
Asbury Park, N. J.	14,629	4	1							
Ashtabula, Ohio.	22,008	4			7				1	
Atlanta, Ga.	196,144	54			1		4	1	1	4
Atlantic City, N. J.	59,515	16			2		3			
Attleboro, Mass.	19,776	3	1						1	
Austin, Tex.	35,612	16	4							3
Baltimore, Md.	594,637	185	42	4	3		9		26	13
Baton Rouge, La.	17,544	4								
Battle Creek, Mich.	30,159	0	2				14			
Bayonne, N. J.	72,204		5		1		1			
Beatrice, Nebr.	10,437	0	1							
Beaumont, Tex.	28,851	16								1
Bedford, Ind.	10,613	3	1							
Bellefonte, N. J.	12,797		1							
Bellingham, Wash.	34,362		2				2			
Beloit, Wis.	18,547	4							9	
Benton Harbor, Mich.	11,099	2								
Berkeley, Calif.	60,427	7	2		1				1	
Berlin, N. H.	13,892	4	2				1			
Bethlehem, Pa.	14,353		3	1	4		1			
Beverly, Mass.	22,128	2	3				4		1	
Biddeford, Me.	17,760	2								
Binghamton, N. Y.	54,864	13	6				3		1	3

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Birmingham, Ala.	189,716	58	10				8		1	2
Bloomington, Ind.	11,661	6								
Bluefield, W. Va.	16,123		6				2			
Boise, Idaho.	35,951	4					1			
Boston, Mass.	767,813	203	82	3	51	1	30		67	29
Braddock, Pa.	22,060		2		2		2			
Brazil, Ind.	10,472	1			1					
Bridgeport, Conn.	124,724	26	15	1	6		3		6	2
Bristol, Conn.	16,318	3	6							
Brockton, Mass.	69,152	7	1		7		2		3	
Brookline, Mass.	33,526	7			2		3		2	1
Brunswick, Ga.	10,584	1								
Buffalo, N. Y.	475,781	121	119	8	2		16		18	11
Burlington, Iowa.	55,144	8					2			
Burlington, Vt.	21,802	7								
Butte, Mont.	44,057						1			
Cadillac, Mich.	10,158	2	2		2					
Cairo, Ill.	15,995	5								
Cambridge, Mass.	114,283	19	5				6			2
Canton, Ill.	13,674	4					5		7	1
Canton, Ohio.	62,566	11	3				1			
Cape Girardeau, Mo.	11,146		3				1			
Carlisle, Pa.	10,795		1							
Carnegie, Pa.	11,963		2				4			
Cedar Rapids, Iowa.	38,033	3	6							
Chanute, Kans.	12,968						1			
Charleston, S. C.	61,041	24	2						2	1
Charleston, W. Va.	31,060	11	2				3			2
Charlotte, N. C.	40,759	11	10				2		3	
Chattanooga, Tenn.	61,575	17					4		1	1
Chelsea, Mass.	48,405	2	2							
Chester, Pa.	41,867	13	6							1
Cheyenne, Wyo.	11,320						1			
Chicago, Ill.	2,547,201	532	175	10	57	1	127	3	191	62
Chicopee, Mass.	29,950	5	3				3	1		
Chillicothe, Ohio.	15,625	4								
Cincinnati, Ohio.	414,248	79	30	1	2					1
Cleveland, Ohio.	692,259	156	84	10	12		13		13	7
Clinton, Iowa.	27,678	1	1	1			24		22	14
Clinton, Mass.	13,075	2								
Cortezville, Pa.	14,908						2			
Coffeyville, Kans.	18,331		2							
Colorado Springs, Colo.	38,965	14	1						3	5
Columbia, S. C.	35,165	8	5							
Columbus, Ga.	26,306								1	1
Columbus, Ohio.	220,135	56	1				10		5	4
Concord, N. H.	22,858	7	6							1
Connellsville, Pa.	15,876		1							
Council Bluffs, Iowa.	31,838	17	4		2		8			
Covington, Ky.	59,623	15	6				2			2
Cranston, R. I.	26,773						1			
Cumberland, Md.	26,686	10					3		1	2
Dallas, Tex.	129,738	24	13				3		5	4
Danbury, Conn.	22,951	7	2						1	
Danvers, Mass.	10,037	0			5					
Danville, Ill.	32,969	2	1							
Danville, Va.	20,183		4							2
Davenport, Iowa.	49,618		3				1		1	
Dayton, Ohio.	128,939	22	4				1		1	
Decatur, Ill.	41,483	8	1						1	
Dedham, Mass.	10,618	5								4
Denver, Colo.	268,439	73	13				5		1	1
Des Moines, Iowa.	104,072	11	11				78	1	47	9
Detroit, Mich.	619,648	187	69	5	22	1	15		1	23
Dover, N. H.	13,276	3							1	
Du Bois, Pa.	14,994		1				1			1
Dubuque, Iowa.	40,096		3							
Duluth, Minn.	97,077	14	49				2		5	3
Durham, N. C.	26,160	4	1				2			
East Chicago, Ind.	30,283	10					2			3

¹ Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Easthampton, Mass.	10,656						4		1	
Easton, Pa.	30,854								1	
East Orange, N. J.	43,761	7					3		3	1
East Providence, R. I.	18,485						1			
East St. Louis, Ill.	77,312	11	1		2		2		11	1
Eau Claire, Wis.	18,887				1		1		1	1
Elgin, Ill.	28,562	6							1	
Elizabeth, N. J.	88,830		5		7		4		2	
Elmira, N. Y.	38,272	10			5		1		1	1
El Paso, Tex.	69,149	29	5							6
Englewood, N. J.	12,603	2							2	
Erie, Pa.	76,592				1		5		7	
Eureka, Calif.	15,142	4								
Evanston, Ill.	29,304	7								
Everett, Mass.	40,160	5					2			2
Everett, Wash.	37,205				2					
Fairmont, W. Va.	16,111		4	1			14			
Fall River, Mass.	129,828	30	2		6	1	1		2	3
Fargo, N. Dak.	17,872				2		4			2
Farrell, Pa.	10,190		2							
Findlay, Ohio.	14,858	4								
Flint, Mich.	57,385	22	9	2	1		7			1
Fond du Lac, Wis.	21,485	6								
Fort Scott, Kans.	10,564	2								1
Fort Wayne, Ind.	78,014	14	1						2	1
Fort Worth, Tex.	109,597	17	26	2			1		1	1
Fostoria, Ohio.	10,959	3								
Fremont, Nebr.	10,680	1								
Fremont, Ohio.	11,034	7	1							
Fresno, Calif.	36,314	10	4				1			2
Galesburg, Ill.	24,622	4								
Galveston, Tex.	42,650	11								1
Gloucester City, N. J.	11,375		1							
Grand Rapids, Mich.	132,861	30	6						3	
Great Falls, Mont.	13,948	1								
Greeley, Colo.	11,942	1								1
Green Bay, Wis.	30,017	5					3			1
Greenfield, Mass.	12,251	6	1							
Greensboro, N. C.	20,171	1								
Greensburg, Pa.	15,881						8			
Greenwich, Conn.	19,304						2			2
Hammond, Ind.	27,016	7			1		1			
Hancock, Mich.	12,578	2								
Harrisburg, Pa.	73,276		3							
Harrison, N. J.	17,345						2		1	
Hartford, Conn.	112,851	29		1	3		10		7	
Haverhill, Mass.	49,180	14	8	2	4		4		3	
Hazleton, Pa.	28,981		4		26		1			
Highland Park, Mich.	33,859	3	6							
Hoboken, N. J.	78,324	8	4							2
Holland, Mich.	12,459	3	15							1
Holyoke, Mass.	66,503	11	1				4	1		1
Homestead, Pa.	23,071		1							
Houston, Tex.	116,878	26	8						6	
Hudson, N. Y.	12,898	2								
Hutchinson, Kans.	21,461		1				3			
Independence, Mo.	11,964	3					1			
Indianapolis, Ind.	283,622	68	9	1	1		14		9	6
Ironton, Ohio.	14,079	6	1							
Ironwood, Mich.	15,095	2							2	
Irvington, N. J.	16,710		1				1			
Ithaca, N. Y.	16,017	9					1		1	
Jamestown, N. Y.	37,431	8	7				1			1
Janesville, Wis.	14,411	4					2			
Jersey City, N. J.	312,557		18				3		14	
Johnstown, Pa.	70,473		4		30				2	
Kalamazoo, Mich.	50,408	21	5				4		3	1
Kankakee, Ill.	14,270	4	3				2			
Kansas City, Kans.	102,096		17		1		5		3	
Kansas City, Mo.	305,816	70	2		19		5		2	1
Kearny, N. J.	24,325	3	1						1	

¹ Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Knoxville, Tenn.	59,112		4				5			
Kokomo, Ind.	21,929	7	1							
Lackawanna, N. Y.	16,219	3					1		1	
La Crosse, Wis.	31,833	9	1				1		1	
La Fayette, Ind.	21,481	2					4			
Lakewood, Ohio.	23,813	2	1							
Lancaster, Ohio.	16,085	3								
Lancaster, Pa.	51,437		2				2		1	
Laurel, Miss.	12,313		2	1			2	1		
Lawrence, Kans.	13,477	2	1				1			
Lawrence, Mass.	102,923	14	2				3		2	1
Leavenworth, Kans.	19,363		2							
Leominster, Mass.	21,365	5			1					
Lexington, Ky.	41,997	25	4				3			5
Lima, Ohio.	37,145	10	10	1	2		9			
Lincoln, Nebr.	46,957	10	2				1		2	2
Lincoln, R. I.	10,473		2							
Little Rock, Ark.	58,716		5				1			
Logansport, Ind.	21,338	6					10		1	1
Long Beach, Calif.	29,193	16							1	
Long Branch, N. J.	15,733	3								
Lorain, Ohio.	38,266	0					2			
Los Angeles, Calif.	535,485	116	38		4		7		56	16
Louisville, Ky.	240,808	59	41	2			3	1	13	6
Lowell, Mass.	114,366	34	4	1			6		2	5
Ludington, Mich.	10,566	1								
Lynchburg, Va.	33,497	6	1				2		1	
Lynn, Mass.	104,534	13	14	1	3		13		1	1
McKeesport, Pa.	48,299		1		10					
McKees Rocks, Pa.	29,795	4							1	
Macon, Ga.	46,099	16	4	1			2			
Madison, Wis.	31,315	4					2			
Malden, Mass.	52,243	8	2				1			
Manchester, Conn.	15,859		1				1		2	
Manchester, N. H.	79,607	19	5						3	
Manitowoc, Wis.	13,931	5			19		3			1
Mankato, Minn.	10,365	2					2			
Marquette, Wis.	14,610	1					4			
Marion, Ind.	19,923	9	3				1			
Marlboro, Mass.	15,285	3			1		1		1	
Marshalltown, Iowa.	14,519		2	1						
Martinsburg, W. Va.	12,984		3				4			
Martins Ferry, Ohio.	10,135	0								
Mason City, Iowa.	14,938	5		1						
Medford, Mass.	26,681	5	2							1
Melrose, Mass.	17,724	7								1
Memphis, Tenn.	151,877	11	41	1			9		5	4
Meriden, Conn.	29,431		1				5		1	
Middletown, N. Y.	15,800		1						1	
Middletown, Ohio.	16,384	1					1			
Milwaukee, Wis.	445,008	77	33	4	10		29		15	5
Minneapolis, Minn.	373,448	63	24	1	2		12		20	6
Mobile, Ala.	59,201	18	14	1			1			1
Monesen, Pa.	23,070		8				2			
Montclair, N. J.	27,087	2								1
Montgomery, Ala.	44,039	15	2				1		1	1
Morgantown, W. Va.	14,444	3					1			
Morristown, N. J.	13,410	6	1	1						
Moundsville, W. Va.	11,513	2	1	1						
Mount Carmel, Pa.	20,709		6							
Mount Vernon, N. Y.	37,991	8	1							1
Nanticoke, Pa.	23,811		1				4			
Nashua, N. H.	27,541						1		2	
Nashville, Tenn.	118,136	29	4	2	1		5		5	4
Natick, Mass.	10,140	5								
Newark, N. J.	418,789	79	23		10		6		33	11
New Bedford, Mass.	121,622	37	3	1	24		3		6	3
New Britain, Conn.	55,385	16	5	1	1		2		2	1
New Brunswick, N. J.	25,855		1						2	
Newburyport, Mass.	15,291	5	1							

1 Population Apr. 15, 1919.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New Castle, Pa.	41,915		3				9			
New Haven, Conn.	152,275	34	16		10		9		8	1
New London, Conn.	21,199	4	1							
New Orleans, La.	377,010	90	4		2		7		18	6
Newport, R. I.	30,585	4					2			1
Newton, Mass.	44,345	12	2				3		3	2
New York, N. Y.	5,737,492	1,029	169	9	63		51	1	373	102
Niagara Falls, N. Y.	38,496	17	1		12		1			
Norristown, Pa.	31,969		2				1		1	
North Adams, Mass.	122,019	2								
Northampton, Mass.	20,006	13	2				1			
North Attleboro, Mass.	11,248	2								
North Braddock, Pa.	15,684						2			
North Little Rock, Ark.	15,515	0					1		5	
North Tonawanda, N. Y.	14,060	3								
Norwalk, Conn.	27,332								1	
Norwich, Conn.	21,923		3							
Norwood, Ohio.	23,269	0			16					
Oakland, Calif.	206,405	34			18		6		13	6
Oak Park, Ill.	27,816	2	6				3			
Ogden, Utah.	32,343	5								
Oil City, Pa.	20,162		3						2	
Oklahoma City, Okla.	97,588	19	5				6		5	1
Olean, N. Y.	16,927	6								
Omaha, Nebr.	177,777	29	8				8			
Orange, N. J.	33,636	10	2							
Oshkosh, Wis.	36,549	7								
Parkersburg, W. Va.	21,659		8						1	
Pasadena, Calif.	49,620	4			2		1			
Passaic, N. J.	74,478	14	2				1		8	3
Paterson, N. J.	140,512	6	11				4		10	
Pawtucket, R. I.	60,666	11	1				4			
Peekskill, N. Y.	19,034	4								
Pekin, Ill.	10,973		1				1			
Peoria, Ill.	72,184	22	16	1			11		4	1
Perth Amboy, N. J.	42,646	11	3							
Petersburg, Va.	25,817	9	4						1	1
Philadelphia, Pa.	1,735,514	434	91	10	30		49	2	76	43
Phillipsburg, N. J.	15,879	5								
Phoenixville, Pa.	11,871		2							
Pine Bluff, Ark.	17,777		1							
Piqua, Ohio.	14,275	1								
Pittsburgh, Pa.	586,196		31		20		20		16	
Pittsfield, Mass.	39,678	13					3		1	1
Plainfield, N. J.	25,330	4	1		17					
Plymouth, Mass.	14,001	0								
Pontiac, Mich.	18,006	4	13		30				1	
Portland, Me.	64,720	15					3			1
Portland, Oreg.	308,399	53	34		4		9		10	4
Portsmouth, N. H.	11,730		1				1		1	
Portsmouth, Va.	40,693	9	2				1		1	
Pottsville, Pa.	22,717		3							
Poughkeepsie, N. Y.	30,786	10	3				1		2	1
Providence, R. I.	259,895	52	23	1	1		9			4
Pueblo, Colo.	56,084	2	2	1			1			
Quincy, Ill.	36,832	6					1		2	
Quincy, Mass.	39,022	9	1				6		4	2
Racine, Wis.	47,465	10					8			
Rahway, N. J.	10,361	0							1	
Raleigh, N. C.	20,274	7	4				5			2
Reading, Pa.	111,607		10				4			
Redlands, Calif.	14,373	3							1	1
Reno, Nev.	15,514	4								
Richmond, Va.	158,702	41	11				9		7	4
Riverside, Calif.	20,496	9		1						2
Roanoke, Va.	46,282	6	2				3			
Rochester, N. Y.	264,714	57	12		8		7		15	4
Rockford, Ill.	56,739	13	2				1			2
Rock Island, Ill.	29,452	4								1
Rocky Mount, N. C.	12,673	4	3				1		1	1

¹ Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS— Continued.

City Reports for Week Ended Oct. 18, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Rome, Ga.	15,607		2				1			
Rome, N. Y.	24,259		1				1		2	
Rutland, Vt.	15,038	2								
Sacramento, Calif.	68,984	21	2				2		3	4
Saginaw, Mich.	56,469		2							1
St. Joseph, Mo.	86,498	29	6	1			6			2
St. Louis, Mo.	768,630	173	118	10	15		10		34	8
St. Paul, Minn.	252,465	46	34	1			7		22	6
Salem, Mass.	49,346	12	4	1			8	1		
Salt Lake City, Utah	121,623	31	6				1		2	1
San Angelo, Tex.	110,321	4								1
San Bernardino, Calif.	17,616	7								
San Diego, Calif.	56,412	19			1					2
Sandusky, Ohio.	20,226	5	2		1					
Sanford, Me.	11,217	2			1					
San Francisco, Calif.	471,023	123			1					17
Santa Cruz, Calif.	15,150	1					5			
Saratoga Springs, N. Y.	13,839	3	2						1	
Saugus, Mass.	10,210		1				1			
Savannah, Ga.	66,250	31	9				2		2	4
Schenectady, N. Y.	103,774	15					1		1	2
Scranton, Pa.	149,541		4				4		6	
Seattle, Wash.	366,445		13		1		13			
Shamokin, Pa.	21,274		4				3			
Sharon, Pa.	19,156						2			
Shenandoah, Pa.	29,773				1					
Sioux City, Iowa	58,768		1				2			
Sioux Falls, S. Dak.	16,887	6					2			1
Southville, Mass.	88,618	17	2		2		5		4	1
South Bend, Ind.	70,967	15	1						2	
Southbridge, Mass.	14,465	3								
Spartanburg, S. C.	21,985	6	2				1			
Spokane, Wash.	157,656		10		2		3			
Springfield, Ill.	62,623	10	3				3		2	1
Springfield, Mass.	108,668	26	3	1			3		4	1
Springfield, Mo.	41,169	8								2
Springfield, Ohio.	52,266	15							2	
Stamford, Conn.	31,810		6		5				1	
Steelman, Pa.	15,759		2						4	
Stevensville, Ohio.	28,259	7	2						1	
Sunbury, Pa.	16,661		3		1		1			
Superior, Wis.	47,167	7	1				2			1
Syracuse, N. Y.	158,536	40	6		3		4		7	2
Tacoma, Wash.	117,446		13		1		4			
Taunton, Mass.	36,619	15	2				1		2	3
Terra Haute, Ind.	67,361	28	2		1				1	1
Tiffin, Ohio.	12,962	2								
Toledo, Ohio.	202,010	51	1		26		23		1	4
Topeka, Kans.	49,538	8	3		1		1			
Trenton, N. J.	113,974	30	3		2				6	3
Troy, N. Y.	78,004	21							6	3
Tuscaloosa, Ala.	10,824	3	2				1		4	
Uniontown, Pa.	21,600						2			
Vancouver, Wash.	13,805		1							
Waco, Tex.	24,015	10	6				3			
Walla Walla, Wash.	26,067						1			
Waltham, Mass.	31,011	7	3							
Warren, Pa.	15,083	2							1	
Washington, D. C.	369,282	96	28	3			11		35	5
Washington, Pa.	22,076	2								
Waterbury, Conn.	89,201	5	10	1	1	1	10		10	3
Wausau, Wis.	19,666	5					1			
West Chester, Pa.	13,403		1				2			
Westfield, Mass.	18,769	7	3	1					1	1
West Hoboken, N. J.	44,386	6	1		1		1			1
West New York, N. J.	19,613	5	4	1					2	
West Orange, N. J.	13,964	1	1						1	
Wheeling, W. Va.	43,637	7	6	1						
White Plains, N. Y.	23,331	2					1		2	
Wichita, Kans.	73,597	16	3				2		1	2

¹ Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—
Continued.

City Reports for Week Ended Oct. 18, 1919—Continued,

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Wilkes-Barre, Pa.	78,334		5				4		2	
Wilkesburg, Pa.	23,896		1						1	
Williamsport, Pa.	34,123		3				9			
Wilmington, Del.	95,369	19	6	2			8			1
Wilmington, N. C.	30,400	8								
Winchester, Mass.	10,812	0								
Winona, Minn.	18,563	5			3		2			
Winston-Salem, N. C.	33,136	10	10						4	
Winthrop, Mass.	13,105								1	
Woburn, Mass.	16,076	4								
Worcester, Mass.	166,106	37	11		1		10		6	4
Yakima, Wash.	22,058		2						6	
Yonkers, N. Y.	109,066	15	13	2	1		1		4	
York, Pa.	52,770		8		5		8			
Youngstown, Ohio.	112,282	19	5				8		5	1
Zanesville, Ohio.	31,320	8								

¹ Population Apr. 15, 1910.

FOREIGN.

ALASKA.

Smallpox—Petersburg.

On October 27, 1919, smallpox was reported present at Petersburg, Alaska.

ARGENTINA.

Influenza—Rosario.

During the month of July, 1919, 39 deaths from influenza were reported in Rosario, Argentina.

CHINA.

Choleraic Diarrhea—Shanghai.

According to information dated September 17, 1919, the situation with regard to the "choleraic diarrhea" epidemic in Shanghai, China, has continued to improve. During the week ended September 14, 1919, there were no new cases among foreigners; there were 18 deaths among Chinese.

In this epidemic there have been but two cases of this disease on board vessels bound from Shanghai to American ports. One case was on the United States cruiser *Albany* and the other developed on the Norwegian S. S. *Tranced*. The case on the latter vessel was fatal. Both of these vessels and their personnel were thoroughly disinfected and were then held sufficiently long in port for six days to elapse between the time of disinfection and their arrival in the first American port, Manila in each instance.

Choleraic diarrhea had been present all over China in epidemic form for two months preceding the date of this information, and in Harbin the true cholera vibrio had been persistently found. Some 4,000 deaths occurred there, the percentage of mortality being considerably higher than at Shanghai in untreated cases, and closely approaching that usually found in true cholera epidemics. In some 1,800 treated cases at Harbin the mortality was approximately 14 per cent.

The disease had also been epidemic at Antung, Dairen, and on the Shantung peninsula where the mortality was 35 to 50 per cent. It had also been prevalent in Tientsin.

CHOSEN (KOREA).

Cholera in Provinces—August 15 to September 11, 1919.

Cases of cholera and deaths therefrom were reported in Chosen (Korea), August 15 to September 11, 1919, as follows:

Province.	Cases.	Deaths.	Cases on hand Sept. 11, 1919.	
			Known.	Sus- pected.
Keiki.....	33	18	.....	14
Kakai.....	566	363	18	185
North Heian.....	618	299	56	261
North Kankyo.....	8	3	2	3
North Keisho.....	3	.....	.....	3
South Heian.....	259	94	.....	165
South Keisho.....	2	1	1	.....
Total.....	1,489	778	77	681

CUBA.

Communicable Diseases—Habana.

Communicable diseases were reported in Habana, Cuba, October 1-10, 1919, as follows:

Disease.	New cases.	Deaths.	Remain- ing under treat- ment Oct. 10, 1919.
Broncho-pneumonia.....	2	2	.....
Chicken pox.....	2	.....	3
Diphtheria.....	1	.....	.....
Influenza.....	.....	3	.....
Leprosy.....	.....	.....	18
Malaria.....	43	.....	161
Measles.....	.....	.....	1
Paratyphoid fever.....	.....	.....	2
Pneumonia.....	1	1	.....
Smallpox.....	.....	.....	1
Typhoid fever.....	13	10	263

¹ From the interior, 21.

² From the interior, 24.

JAPAN.

Deaths from Pneumonia, Cerebrospinal Meningitis, and all Causes—Kobe—July 6 to September 27, 1919.

Deaths in Kobe, Japan, from pneumonia, cerebrospinal meningitis, and all causes, July 6 to September 27, 1919, were reported as follows:

Week ended—	All causes.	Pneu- monia.	Cerebro- spinal menin- gitis.
July 12.....	223	24	21
July 19.....	234	23	16
July 26.....	236	31	19
Aug. 2.....	240	18	31
Aug. 9.....	255	16	25
Aug. 16.....	253	24	25
Aug. 23.....	258	18	28
Aug. 30.....	304	22	41
Sept. 7.....	256	13	35
Sept. 13.....	253	15	29
Sept. 20.....	287	10	30
Sept. 27.....	264	18	23
Total.....	3,063	232	325

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Nov. 7, 1919.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	Aug. 24-Sept. 13.....		129	
Antung.....	Sept. 15-28.....	135	54	
Canton.....	Aug. 31-Sept. 6.....	1	1	
Do.....	Sept. 21-27.....	1	1	
Hongkong.....	Sept. 7-13.....	7	7	
Swatow.....	do.....	5		
Tientsin.....	do.....	11		
Tsinanfu.....	do.....	32	3	
Tsingtau.....	Sept. 8-21.....	49	30	
Indo-China:				
Cochin-China—				
Saigon.....	Aug. 31-Sept. 7.....	8	7	
India:				
Madras.....	Aug. 28-Sept. 3.....	2	2	
Rangoon.....	July 1-31.....	56	51	One imported.
Do.....	Aug. 17-23.....	2	2	
Japan:				
Kobe.....	Sept. 21-27.....	1	1	
Taiwan.....	Aug. 21-31.....	574	419	
Do.....	Sept. 1-20.....	657	621	
Yokohama.....	Sept. 1-7.....	1		Sept. 5, 1 case on fishing vessel near Haneda.
Java:				
Batavia.....	Aug. 15-28.....	3		
Buitenzorg.....	Aug. 15-21.....	1		
Tjandjoer.....	Aug. 15-21.....	2	2	
Philippine Islands:				
Manila.....	Aug. 31-Sept. 20.....	105	50	
Provinces:				
Albay.....	Sept. 14-20.....	29	11	
Ambos Camarines.....	do.....	74	55	
Bataan.....	Sept. 7-13.....	5	4	
Batangas.....	Sept. 7-20.....	111	83	
Bohol.....	do.....	24	23	
Bulacan.....	do.....	15	12	
Capiz.....	do.....	35	17	
Cavite.....	do.....	21	16	
Cebu.....	do.....	105	62	
Davao.....	Sept. 7-13.....	3	1	
Ilocos Norte.....	Sept. 7-20.....	284	203	
Ilocos Sur.....	Sept. 14-20.....	307	265	
Iloilo.....	Sept. 7-20.....	143	117	
Laguna.....	do.....	96	72	
Mountain.....	do.....	107	58	
Nueva Ecija.....	do.....	33	16	
Occidental Negros.....	do.....	57	35	
Pangasinan.....	do.....	266	199	
Rizal.....	do.....	175	96	
Sorsogon.....	Sept. 14-20.....	34	19	
Tarlac.....	do.....	10	8	
Tayabas.....	Sept. 7-20.....	31	25	
Union.....	do.....	479	326	
Zambales.....	Sept. 7-13.....	1	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Nov, 7, 1919—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Siam:				
Bangkok.....	Aug. 24-30.....		7	
Sumatra:				
Medan.....	Aug. 10-16.....	21	15	Present in surrounding country.

PLAGUE.

Brazil.....	Sept. 8.....			Present in Ceara.
China:				
Amoy.....	Aug. 24-Sept. 13..			Present.
Hongkong.....	Sept. 7-13.....			Do.
Indo-China:				
Cochin-China—				
Saigon.....	Aug. 31-Sept. 7...	3	3	
Greece:				
Athens.....	Oct. 20.....	5	3	
Piraeus.....	Oct. 23.....	2	1	
India:				
Madras Presidency.....	Sept. 7-13.....	159	110	
Rangoon.....	July 1-31.....	106	99	Imported.
Do.....	Aug. 17-23.....	14	12	
Malta:				
Valetta.....	Aug. 1-31.....		5	
Straits Settlements:				
Singapore.....	Aug. 21-30.....	1		
On vessels:				
S. S. Worcestershire.....	Oct. 23.....			Arrived at Liverpool from South America.

SMALLPOX.

Alaska:				
Petersburg.....	Oct. 27.....			Present.
Brazil:				
Para.....	Sept. 21-27.....		1	
British West Indies:				
Granada.....	Sept. 27.....			1 case reported from Carriacou
Canada:				
Ontario—				
Toronto.....	Oct. 12-18.....	2		
Quebec—				
Montreal.....	Oct. 19-25.....	5		
China:				
Amoy.....	Aug. 24-Sept. 13..		3	Present.
Canton.....	Aug. 31-Sept. 6.....			Do.
Do.....	Sept. 21-27.....			Do.
Hongkong.....	Sept. 7-13.....			Do.
Cuba:				
Habana.....	Aug. 2-Oct. 23.....	31		
Egypt:				
Alexandria.....	Sept. 17-23.....	8	2	
France:				
Paris.....	Sept. 7-13.....	5		
India:				
Madras.....	Sept. 7-13.....	12		
Rangoon.....	July 1-31.....	24	10	1 imported.
Do.....	Aug. 17-23.....	3	2	
Indo-China:				
Cochin-China—				
Saigon.....	Aug. 31-Sept. 7...	4	1	
Italy:				
Messina.....	Aug. 25-Sept. 21..	191	83	
Java:				
Batavia.....	Aug. 15-28.....	2		
Buitenzorg.....	Aug. 15-21.....	5		
Garoet.....	Aug. 15-21.....	41	6	
Meester Cornelis.....	Aug. 15-28.....	11	4	
Pandeglang.....	Aug. 22-28.....	4		
Tasikmalaya.....	Aug. 15-21.....	3	3	
Malta:				
Valetta.....	Aug. 1-31.....	4	1	
Do.....	Sept. 17-30.....	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Nov. 7, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Mexico City.....	Sept. 28-Oct. 4....	2		
San Luis Potosi.....	Oct. 12-18.....		1	
Newfoundland:				
St. Johns.....	Oct. 11-17.....	2		Present on Pilley's Island.
Spain:				
Valencia.....	Sept. 29-Oct. 14...	8	2	
Wales:				
Cardiff.....	Sept. 14-20.....	2		

TYPHUS FEVER.

Egypt:				
Alexandria.....	Sept. 17-23.....	10	4	
India:				
Rangoon.....	July 1-31.....		21	
Japan:				
Nagasaki.....	Oct. 6.....	4	2	
Java:				
Bandoeng.....	Aug. 15-21.....	5		
Batavia.....	Aug. 15-28.....	6		
Buitenzorg.....	Aug. 22-28.....	3		
Mexico:				
Guadalajara.....	Sept. 24-30.....	3		
Mexico City.....	Sept. 21-Oct. 4....	41		
Switzerland:				
Zurich.....	Sept. 7-20.....	9		

YELLOW FEVER.

Yucatan:				
Merida.....	Aug. 31-Sept. 12..	15	9	
Do.....	Sept. 14-20.....	2	2	
Temax.....	Sept. 14-20.....	4	2	

Reports Received from June 28 to Oct. 31, 1919.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	Apr. 20-26.....	10		
Hambantota.....	July 25.....			Outbreak 148 miles from Colombo. Spread to other places.
China:				
Amoy.....	June 17-30.....		25	
Do.....	July 1-Aug. 26.....		514	
Antung.....	Aug. 5-Sept. 14....	984	360	
Canton.....	June 8-21.....	10	3	
Do.....	June 29-Aug. 10....	10	11	Present in foreign section, Island Shamien, Aug. 8.
Chefoo.....	Aug. 31-Sept. 6....			Daily average over 50 fatalities.
Foochow.....	July 10-26.....			To July 16: Average of 100 fatalities daily. To July 26: Average of 30 cases daily. Five fatal cases European. July 27-Aug. 9: Epidemic.
Hankow.....	Aug. 31-Sept. 6....	1		Present.
Hongkong.....	July 13-Sept. 6....	19	17	Foreign.
Mukden.....	Sept. 6-13.....			Choleraic disease prevalent from about July 15 with high mortality.
Peking.....	Aug. 24-30.....		1	
Shanghai.....	Aug. 6-31.....	7		
Swatow.....	May 25-June 28....		90	
Do.....	June 29-Aug. 30....		120	
Tientsin.....	Aug. 10-Sept. 6....	232	4	Cases are from reports of physicians from the foreign concessions and native city. Deaths are for the British concession.
Tsingtao.....	July 6-Sept. 7.....	91	53	Present: 30 miles from Swatow.
Ungkung.....	Aug. 16.....			

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Chosen (Korea):	Aug. 15.....	3	.....	Aug. 26: 6 cases.
Anyo.....	do.....	1	.....	Keiki Province.
New Wiju.....	Aug. 12.....	1	.....	In a Korean arrived from An-
Seoul.....	Aug. 1-31.....	1	5	tung, China, where cholera was
Shingshu.....	do.....	1	.....	prevalent.
South Kankyo.....	Aug. 26.....	.....	.....	North Heian Province.
India:				Present.
Bombay.....	Apr. 28-June 28.....	84	55	
Do.....	June 29-Aug. 9.....	157	91	
Calcutta.....	May 4-June 21.....	.....	617	
Do.....	June 29-Aug. 9.....	.....	100	
Karachi.....	July 24-30.....	3	2	
Madras.....	May 18-June 28.....	29	19	Jan. 19-25, 1919: Cases, 113;
Do.....	July 12-Aug. 16.....	33	18	deaths, 74.
Do.....	Aug. 18-Sept. 6.....	17	11	
Rangoon.....	Apr. 28-June 28.....	108	85	
Do.....	June 29-Aug. 16.....	72	70	
Indo-China:				
Cochin-China—				
Saigon.....	Apr. 21-June 29.....	386	272	City and district.
Do.....	July 28-Aug. 24.....	33	30	
Japan:				
Pascadores Islands.....	July 14.....	49	.....	In 1 village.
Taiwan Islands.....				July 2-Aug. 12, 1919: Cases, 598;
Keelung.....	Aug. 8.....	.....	.....	deaths, 245.
Taihoku.....	do.....	.....	.....	Present in vicinity
Tokyo.....	Aug. 18-24.....	4	.....	Present.
Java:				
East Java.....				Apr. 2-June 20, 1919: Cases, 613;
Surabaya.....	Apr. 23-June 20.....	97	79	deaths, 507. June 25-July 15,
Do.....	June 25-July 15.....	15	13	1919: Cases, 16; deaths, 18.
Do.....	July 30-Aug. 5.....	1	1	
Do.....	Aug. 13-19.....	1	1	
Mid-Java.....				Mar. 28-May 30, 1919: Cases, 1,914;
Samarang.....	Mar. 28-May 30.....	89	84	deaths, 1,525.
West Java.....				May 2-June 26, 1919: Cases, 100;
Batavia.....	May 2-June 5.....	12	5	deaths, 67. July 18-Aug. 2,
Do.....	Aug. 2-14.....	3	.....	1919: Cases, 10; deaths, 5.
Manchuria:				
Dairen.....	Aug. 12.....	.....	.....	Present.
Harbin.....	Aug. 7.....	.....	.....	Present and in surrounding
				country. Aug. 14: Epidemic,
				with an estimated number of
				from 150 to 200 deaths.
Mesopotamia:				
Bassorah.....	July 20-26.....	1	.....
Persia:				
Ardebil.....	May 2.....	.....	.....	Present.
Enzeh.....	Apr. 23.....	1	.....
Khorram-Ahab.....	May 3.....	.....	.....	Outbreak.
Mianedge.....	Apr. 28.....	.....	.....	Do.
Zindjan.....	Apr. 21-May 4.....	.....	49	
Philippine Islands:				
Manila.....	Apr. 26-June 28.....	11	5	
Do.....	June 29-Aug. 2.....	261	133	
Do.....	Aug. 10-Sept. 6.....	259	121	
Do.....	Aug. 17-Sept. 6.....	185	77	
Provinces:				May 4-21, 1919: Cases, 567; deaths,
Batangas.....	May 4-21.....	25	23	383.
Bulacan.....	do.....	48	25	
Cebu.....	do.....	162	84	
Laguna.....	do.....	20	15	
Mindoro.....	do.....	19	14	
Misamis.....	do.....	9	2	
Pampanga.....	do.....	166	131	
Tayabas.....	do.....	118	89	
Provinces:				June 1-28, 1919: Cases, 615; deaths,
Batangas.....	June 1-28.....	79	61	435.
Bohol.....	June 15-28.....	11	8	
Bulacan.....	June 1-28.....	63	27	
Cavite.....	June 8-28.....	23	14	
Cebu.....	June 22-28.....	24	11	
Laguna.....	June 8-21.....	16	13	
Hocos Sur.....	June 15-21.....	1	.....
Nueva Ecija.....	June 1-28.....	60	39	
Pampanga.....	do.....	105	79	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.	
Philippine Islands—Continued.					
Provinces—Continued.					
Pangasinan.....	June 8-28.....	113	81	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Tayabas.....	do.....	108	81		
Union.....	June 22-28.....	7	7		
Provinces.....					
Albay.....	Aug. 31-Sept. 6.....	1	1	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Ambos Camarines.....	July 27-Aug. 23.....	145	90		
Bataan.....	July 6-Aug. 9.....	8	7		
Batangas.....	June 29-Sept. 6.....	950	720	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Bohol.....	do.....	54	37		
Bulacan.....	do.....	485	357		
Capiz.....	Aug. 24-Sept. 6.....	21	13	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Cavite.....	June 29-Aug. 16.....	174	115		
Do.....	Aug. 24-Sept. 6.....	86	55		
Cebu.....	June 29-July 26.....	84	41	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Do.....	Aug. 17-Sept. 6.....	691	424		
Ilocos Norte.....	Aug. 10-Sept. 6.....	123	98		
Ilocos Sur.....	July 20-Aug. 9.....	177	120	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Do.....	Aug. 17-30.....	211	146		
Iloilo.....	July 6-Sept. 6.....	182	125		
Laguna.....	do.....	319	238	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Leyte.....	Aug. 24-30.....	41	18		
Mindoro.....	July 20-23.....	125	45		
Do.....	Aug. 24-30.....	79	45	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Misamis.....	July 20-23.....	6	4		
Do.....	Aug. 17-23.....	5	4		
Mountain.....	July 6-12.....	9	2	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Do.....	Aug. 31-Sept. 6.....	4	4		
Nueva Ecija.....	June 29-Sept. 6.....	511	365		
Occidental Negros.....	Aug. 24-Sept. 6.....	66	48	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Oriental Negros.....	July 27-Sept. 6.....	173	103		
Pampanga.....	June 27-Sept. 6.....	508	461		
Pangasinan.....	do.....	5,827	4,263	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Rizal.....	July 13-Aug. 23.....	420	262		
Do.....	Aug. 31-Sept. 6.....	184	115		
Sorsogon.....	July 27-Aug. 16.....	23	21	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Tayabas.....	June 29-Sept. 6.....	360	195		
Union.....	July 6-Sept. 6.....	726	541		
Zambales.....	July 13-19.....	1	1	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Do.....	Aug. 31-Sept. 6.....	27	115		
Siam:					
Bangkok.....	Apr. 12-June 28.....		607	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Do.....	June 30-Aug. 23.....		48		
Straits Settlements:					
Singapore.....	July 14-27.....	80	9	Sept. 30: Present.	
Sumatra:					
Medan.....	June 20-July 13-26.....	8	1	Present in neighboring villages, June-July, 1919.	
Do.....	Aug. 3-9.....	12	6	June 29-Sept. 6, 1919: Cases, 13,043; deaths, 9,331.	
Turkey:					
Constantinople.....	July 28.....				Present.
On vessel:					
Steamship.....	Aug. 17.....	1		At Yokohama, from Shanghai, Aug. 12, 1919.	

PLAGUE.

Azores:				
Fayal Island.....	Sept. 6-19.....			Present.
Terceira Island.....	do.....			Do.
Brazil:				
Ceara.....	Sept. 8.....			Do.
Pernambuco.....	May 26-June 1.....		1	
British East Africa:				
Kisumu.....	May 18-June 28.....			Present. Zanzibar Island.
Do.....	June 29-July 26.....			Do.
Do.....	Aug. 3-6.....			Present in vicinity. Zanzibar Island.
Nairobi.....	June 15-21.....	1		
Do.....	Aug. 17-23.....	5	2	
Ceylon:				
Colombo.....	Aug. 10-16.....	2	2	Town cases.
Chile:				
Antofagasta.....	Aug. 18-23.....	3		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	June 17-23.....	.....	1	
Do.....	Aug. 18-25.....	.....	1	
Canton.....	May 25-June 28.....	.....	.....	Present. Apr. 27-May 10, 1919.
Foochow.....	May 18-24.....	.....	.....	Present. Cases 3; present May
Hongkong.....	June 15-28.....	42	33	24-June 7, 1919.
Do.....	June 29-Aug. 9.....	35	31	
Do.....	Aug. 31-Sept. 6.....	1	.....
Ecuador:				
Guayaquil.....	June 16-30.....	2	1	
Posorja.....	June 1-30.....	3	1	Bathing place 65 kilometers from Guayaquil.
Egypt:				Jan. 1-Aug. 6, 1919: Cases, 740; deaths, 405.
Cities—				
Alexandria.....	July 23-29.....	1	.....
Do.....	Sept. 3-9.....	3	2	
Ismailia.....	July 29.....	2	.....
Cairo.....	May 1.....	.....	1	
Kentarah.....	June 19-20.....	4	2	
Do.....	July 31-Aug. 3.....	2	3	Two European. Septicemic.
Port Said.....	May 1-June 28.....	9	10	
Do.....	July 2-Aug. 5.....	17	17	
Suez.....	June 5-11.....	3	3	
Provinces—				
Assiout.....	May 17-June 24.....	80	41	
Do.....	July 3-Aug. 6.....	7	3	
Beni-Souef.....	May 19-June 21.....	6	5	
Fayoum.....	May 18-July 5.....	10	7	
Girgeh.....	May 15-July 8.....	32	10	
Menoufia.....	June 8-24.....	5	1	
Minieh.....	May 24-June 25.....	29	11	
Do.....	July 5-7.....	3	1	
France:				
Marseille.....	Aug. 19-Sept. 2.....	5	3	Total number of cases reported to Aug. 27, 11; deaths, 3.
Great Britain:				
Liverpool.....	July 30.....	1	1	In dock laborer.
Hawaii:				
Ah Poi Camp.....	Aug. 9.....	1	1	
Pauhan.....	July 19.....	1	.....
Kukulan.....	Sept. 23.....	3	3	
Panilo.....	Sept. 25.....	2	1	
India:				Apr. 27-June 28, 1919: Cases, 8,645; deaths, 6,633. June 29-Aug. 9, 1919: Cases, 2,623; deaths, 1,974.
Bombay.....	Apr. 28-June 28.....	278	202	
Do.....	June 29-Aug. 9.....	37	23	
Calcutta.....	May 18-June 14.....	47	28	
Do.....	June 28-Aug. 2.....	.....	22	
Karachi.....	May 18-June 28.....	145	132	
Do.....	June 29-Aug. 9.....	42	39	
Do.....	Aug. 28-Sept. 6.....	19	14	
Madras.....	.....	.....	.....	Jan. 19-25, 1919: Cases, 2; deaths, 1.
Madras Presidency.....	July 6-Aug. 16.....	381	237	Jan. 19-25, 1919: Cases, 586; deaths, 347. May 30-June 5: Cases, 37; deaths, 28.
Do.....	Aug. 31-Sept. 6.....	154	80	
Rangoon.....	Apr. 28-June 28.....	75	63	
Do.....	July 6-Aug. 16.....	158	144	
Do.....	Aug. 24-30.....	17	16	
Indo-China:				
Cochin China—				
Saiton.....	Apr. 21-June 29.....	31	23	City and district.
Do.....	July 28-Aug. 24.....	8	4	
Japan:				
Yokohama.....	June 9-15.....	1	1	
Java:				
East Java.....	.....	.....	.....	Apr. 8-June 28, 1919: Cases, 130; deaths, 130. July 23-29, 1919: Cases, 34; deaths, 34.
Salatiga.....	Aug. 20-26.....	1	1	
Surabaya.....	Apr. 23-June 3.....	7	7	
.....	July 30-Aug. 12.....	4	3	
.....	Aug. 29-28.....	3	3	
Tomanggoeng.....	July 30-Aug. 26.....	34	34	
Mid-Java.....	.....	.....	.....	Apr. 26-May 30, 1919: Cases, 23; deaths, 23.
Samarang.....	Apr. 26-May 20.....	10	19	
Mesopotamia:				
Bagdad.....	Apr. 10-June 20.....	346	269	
Do.....	July 19-25.....	2	1	
Do.....	Aug. 2-8.....	1	.....
Basra.....	May 3-10.....	168	89	Including suburb of Ashar. Total from date of outbreak, March, 1919, to June 24, 1919: Cases, 396; deaths, 256.
Bassorah.....	July 22-23.....	2	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Siam:				
Bangkok.....	Apr. 27-May 17....	2	2	
Spain:				
Barcelona.....	Sept. 15.....	5		
Straits Settlements:				
Singapore.....	Apr. 13-26.....	2	1	
Do.....	July 14-27.....	11	7	
Syria:				
Beirut.....	Oct. 11.....	24		Present.
Turkey:				
Constantinople.....	Oct. 9.....			Bubonic and pneumonic.
On vessels:				
S. S. City of Sparta.....	Apr. 19-21.....	1	1	From Bombay, Apr. 3, 1919: Case a soldier at sea.
Do.....	May 13-17.....	1	1	At Liverpool: Case, a native member of the crew. (Public Health Reports, June 27, 1919, p. 1463.)
S. S. Clan Lamont.....	Aug. 19.....	1		In dock in port of London, England. Vessel left Calcutta Mar. 23; arrived Buenos Aires May 9; sailed June 20; arrived Montevideo and sailed June 21; arrived St. Vincent, Cape Verde Islands, July 10.
S. S. Framlington Court.....	July 23.....	1		From Alexandria, May 30; from Montreal, July 4; from Sydney, Nova Scotia, July 9; at Avonmouth, England, July 22, 1919.

SMALLPOX.

Algeria:				
Algiers.....	June 1-30.....	1	1	
Do.....	July 1-Aug. 31.....	16	5	
Arabia:				
Aden.....	May 13-19.....		1	
Austria:				Mar. 9-Apr. 5, 1919: Cases, 92.
Salzburg.....	Mar. 9-Apr. 5.....	50		
Vienna.....	do.....	17		
Azores:				
St. Michaels.....	June 7-20.....	1		
Brazil:				
Bahia.....	Apr. 20-June 7.....	4		
Pernambuco.....	May 4-25.....	5		Jan. 1-May 3, 1919: Cases, 10.
Rio de Janeiro.....	May 11-June 21.....	61	20	
Do.....	June 30-Sept. 6.....	325	89	
British East Africa:				
Kisumu.....	Mar. 2-8.....	1	1	Zanzibar Island.
Mombasa.....	Mar. 1-June 7.....	275	37	
Mtebba.....	Mar. 24-Apr. 6.....			Present. In Uganda.
Nairobi.....	Mar. 1-May 31.....	3		
Prison Island Quarantine Station.		1	1	Zanzibar Island. In February, 1919. From vessel from India.
Canada:				
British Columbia—				
Vancouver.....	June 15-Sept. 11.....	8		
New Brunswick—				
Antigonish County.....	Sept. 28-Oct. 4.....			Present.
Campbellton.....	June 15-21.....	1		
Do.....	Aug.-Sept. 6.....	1		
Gloucester County.....				July 1-Sept. 30, 1919: Cases, 12.
Moncton.....	July 6-12.....	1		
St. John.....	July 27-Aug. 2.....	1		
Nova Scotia—				
Cities—				
Bridgenorth.....	July 27-Aug. 9.....			A few cases; mild.
Halifax.....	June 28-Sept. 20.....	65		June 15-28: 1919: Cases, 82.
Do.....	Oct. 5-11.....			Present.
Sydney.....	June 8-21.....	3		
Do.....	Aug. 1-Sept. 6.....	4		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Nova Scotia—Continued.				
Counties—				
Antigonish.....	June 28-Sept. 6.....			Present.
Colchester.....	Aug. 3-8.....			Do.
Cumberland.....	Aug. 30-Sept. 6.....			Do.
Guysborough.....	Aug. 18-30.....			Do.
Do.....	Sept. 21-27.....			Do.
Halifax.....	June 28-Sept. 27.....			Do.
Hants.....	do.....			Do.
Kings.....	Aug. 10-16.....			Do.
Lunenburg.....	July 13-Aug. 16.....			Do.
Pictou.....	July 20-Sept. 13.....			Present. Also on Cape Breton Island, July 27-Aug. 21.
Richmond.....	Aug. 24-Sept. 20.....			Present.
Shelbourne.....	Aug. 24-30.....			Do.
Victoria.....	Aug. 3-9.....			Do.
Ontario—				
Province.				
Hamilton.....	June 29-Aug. 2.....	2		May 1-June 30, 1919: Cases, 166; deaths, 4. July 1-31, 1919: Cases, 51; deaths, 1.
Harwich.....	May 1-31.....	14	2	Township in Kent County.
North Bay.....	Sept. 21-27.....	1		
Ottawa.....	June 15-27.....	2		
Do.....	June 29-Sept. 6.....	3		
Peterborough.....	June 15-21.....	4		
Toronto.....	Aug. 31-Sept. 6.....	1		
Do.....	Sept. 21-27.....	1		
Walpole Island.....	May 1-31.....	42		Kent County. Island in Lake St. Clair. Among Indians.
Prince Edward Island—				
Charlottetown.....	July 16-Aug. 9.....	8		
Quebec.				
Montreal.....	June 8-28.....	18		In Bonaventure and Gaspé Counties, Aug. 1-31, 1919: 2 cases.
Do.....	Aug. 21-Oct. 11.....	13		
Quebec.....	June 8-28.....	18		June 8-14, 1919: 1 case on incoming vessel.
Do.....	July 5-Sept. 20.....	41		Estimated. On Indian reserve.
Restigouche.....	June 15-July 31.....	40		
Ceylon:				
Colombo.....	May 1-31.....	4		June 17-23: Present.
Do.....	July 13-Aug. 23.....	3	3	
China:				
Amoy.....	May 20-June 16.....		13	Present.
Do.....	July 8-21.....			Do.
Do.....	July 29-Aug. 25.....			Do.
Canton.....	May 18-June 21.....			Do.
Do.....	July 1-Aug. 16.....			Do.
Chefoo.....	June 8-21.....			Do.
Chungking.....	May 4-June 23.....			Do.
Do.....	June 29-Aug. 23.....			Do.
Foochow.....	May 18-Aug. 23.....			Do.
Hankow.....	Aug. 31-Sept. 6.....	3		
Hongkong.....	May 18-June 28.....	5	5	Do.
Do.....	Aug. 31-Sept. 6.....			Do.
Mukden.....	Sept. 7-13.....			Do.
Nanking.....	May 25-June 28.....			Do.
Do.....	June 29-Aug. 30.....			Do.
Chosen (Korea):				
Chemulpo.....	Apr. 1-June 30.....	22	4	
Do.....	July 1-31.....	1	1	
Fusan.....	do.....	336	96	
Do.....	do.....	4		
Seoul.....	Apr. 1-May 31.....	3	1	
Do.....	Aug. 1-31.....	1		
Cuba:				
Habana.....	Aug. 2-Oct. 23.....	35		First case from S. S. Venezia, from Spanish ports; arrived Habana about July 20, 1919.
Czecho-Slovakia:				
Prague.....	May 18-June 21.....	11	2	
Denmark:				
Copenhagen.....				Apr. 2-28, 1919: Cases, 11.
Egypt:				
Alexandria.....	May 14-June 24.....	233	95	
Do.....	June 25-Sept. 9.....	226	118	
Cairo.....	Jan. 2-May 20.....	544	124	
Do.....	June 18-Aug. 5.....	349	131	
Port Said.....	July 9-15.....	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28, to Oct. 31, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Finland.				Apr. 16-June 30, 1919: Cases, 469. July 1-15, 1919: Cases, 44.
Provinces—				
Abo Och Bjorneborg.	Apr. 16-June 30.	13		
Kuopio.	do.	88		
Do.	July 1-15.	1		
Finland.	Apr. 16-June 30.	17		
St. Michael.	do.	73		
Do.	July 1-15.	2		
Travasthus.	Apr. 16-June 30.	63		
Do.	July 1-15.	5		
Vasa.	Apr. 16-June 14.	12		
Viborg.	Apr. 16-June 30.	349		
Do.	July 1-15.	36		
France:				
Havre.	May 23-30.	1		
Marseille.	May 1-June 30.		5	
Paris.	May 11-June 28.	17	28	
Do.	June 29-Sept. 6.	61	13	
Do.	Sept. 14-20.	1	1	
Gibraltar.	June 28-Aug. 16.	1	2	One from Bay.
Great Britain:				
Cardiff.	June 15-Aug. 30.	8		
Dundee.	June 1-7.	1		
Do.	Aug. 18-23.	9	6	
Glasgow.	June 8-21.	5		
Liverpool.	June 22-28.	1		
Do.	June 29-Sept. 6.	6		
London.	May 25-June 28.	13		
Do.	June 29-Aug. 9.	18	2	
Manchester.	July 27-Sept. 6.	11		
Greece:				
Saloniki.	May 15-June 28.		48	
Do.	June 29-Aug. 23.		43	
India:				
Bombay.	Apr. 28-June 28.	712	283	
Do.	July 6-Aug. 9.	81	51	
Calcutta.	May 4-June 21.		444	
Do.	June 29-Aug. 9.		109	
Karachi.	May 4-June 21.	28	17	
Madras.	May 18-June 28.	171	55	Jan. 19-25, 1919: Cases, 29; deaths, 25.
Do.	July 6-Aug. 16.	236	107	
Do.	Aug. 18-Sept. 6.	54	26	
Rangoon.	Apr. 28-June 28.	188	92	
Do.	July 6-Aug. 16.	44	20	
Do.	Aug. 24-30.	8		
Indo China:				
Cochin China—				
Saigon.	Apr. 21-May 18.	11	4	City and district.
Do.	Aug. 11-24.	2		
Italy:				
Genoa.	July 7-Aug. 31.	8		
Leghorn.	June 16-29.	2		
Messina.	June 1-21.	13		Province, June 8-21, 1919: Cases, 23; deaths, 3.
Do.	June 29-Aug. 24.	336	128	
Milan.	Mar. 1-June 30.	50	8	
Milazzo.	June 1-7.	1	1	
Naples.	June 2-29.	103	91	
Do.	June 30-Aug. 17.	122	119	
Palermo.	May 2-June 20.	39	5	
Do.	June 28-July 5.	37	9	
Turin.	May 18-June 29.	5	1	
Do.	July 6-Sept. 7.	8		
Venice.	May 26-June 1.	2		
Japan:				
Kobe.	May 4-Sept. 7.	173	78	
Nagoya.	June 1-7.	1	1	
Taiwan Island.	May 21-Aug. 12.	20	6	Entire island.
Tokyo.	May 1-June 5.	2		
Yokohama.	May 26-June 1.	1		
Java:				
East Java.				Apr. 9-June 3, 1919: Cases, 3. July 9-15, 1919: Cases, 2.
Surabaya.	May 27-June 3.	2		
Do.	July 30-Aug. 5.	2		
Do.	Aug. 13-26.	2		
Mid-Java.				
West Java.	Apr. 26-May 16.	7		
Batavia.	Apr. 18-June 5.		4	May 2-June 26, 1919: Cases, 615; deaths, 148. June 27-Aug. 25, 1919: Cases, 235; deaths, 58.
Do.	July 25-31.	3	2	
Do.	Aug. 8-14.	62	12	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28, to Oct. 31, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Malta.....	May 1-31.....	1		
Manchuria:				
Dairen.....	May 13-June 2.....	3	2	Present.
Mukden.....	July 6-Aug. 23.....			
Mesopotamia:				
Bagdad.....	May 29-30.....	1		
Mexico:				
Cananea.....	Feb. 1-28.....	7		State of Sonora.
Do.....	Apr. 1-30.....	1		
Guadalajara.....	June 1-30.....	1		
Mexico City.....	June 1-28.....	20	1	
Do.....	June 29-Sept. 6.....	4		
Piedras Negras.....	June 22-23.....	2	2	
Salina Cruz.....	Sept. 1-15.....	1		
Do.....	Sept. 17-30.....	1		
San Jeronimo.....	June 17-30.....	5	1	
San Luis Potosi.....	Sept. 7-13.....		3	
Do.....	Sept. 21-Oct. 4.....			
Tehuantepec.....	Sept. 16.....	2		In State of Oaxaca.
Vera Cruz.....	July 6-19.....	4		
Do.....	June 29-Aug. 30.....	2	9	
Do.....	Sept. 28-Oct. 4.....	2		
Newfoundland:				
St. Johns.....	June 13-Sept. 26.....	9		June 13-27, 1919: Outports, 372 cases. June 28-Sept. 5, 1919: Cases, 58. Sept. 20-Oct. 3, 1919: Cases, 6. Oct. 11, 1919: Cases, 2.
Palestine:				
Jaffa.....	Jan. 30-Feb. 5.....	2		
Philippine Islands:				
Manila.....	May 11-17.....	1		
Portugal:				
Lisbon.....	July 26-Sept. 20.....	85		
Oporto.....	June 1-28.....	25	13	
Do.....	June 29-Sept. 13.....	77	45	
Portuguese East Africa:				
Lourenco Marques.....	Apr. 1-May 31.....	2	1	
Russia:				
Riga.....	June 1-30.....			Present.
Siberia:				
Vladivostok.....	June 8-30.....	45		
Do.....	July 1-31.....	12	3	
Spain:				
Almeria.....	May 18-June 30.....	68	6	
Barcelona.....	May 15-June 19.....	3	6	
Do.....	June 26-Aug. 26.....		37	
Bilbao.....	May 1-10.....	1		
Do.....	Aug. 1-10.....	1		
Do.....	Aug. 21-31.....	3		
Cadiz.....	Apr. 1-May 31.....		5	
Do.....	July 1-31.....		2	
Madrid.....	May 1-31.....	3		
Do.....	Aug. 1-31.....	2		
Malaga.....	do.....		1	
Seville.....	do.....		1	
Valencia.....	May 11-June 29.....	233	15	
Do.....	July 14-Sept. 13.....	90	13	
Do.....	Sept. 21-27.....	2	1	
Vigo.....	Apr. 12.....	2		
Do.....	July 6-19.....	37	8	
Do.....	Sept. 7-20.....	2	2	
Do.....	Sept. 28-Oct. 4.....	1		
Straits Settlements:				
Singapore.....	Mar. 24-May 17.....	6	3	From vessel, Mar. 22, 1919: Present in villages in vicinity.
Do.....	July 8-27.....	5	1	
Sumatra:				
Medan.....	June 26-July 12.....			Present in surrounding country.
Tunis:				
Tunis.....	June 15-28.....	2	1	June 22-28, 1919: Present in surrounding country. June 29-July 12: Present in surrounding country.
Do.....	June 29-July 5.....	3	2	
Union of South Africa:				
Johannesburg.....	May 1-31.....	1		
On vessels:				
S. S. Eastern.....	Apr. 25-26.....	2	1	Death at sea. Second case landed at Woodmans Quarantine Station, Fremantle, Australia, Apr. 29. Vessel from England via Egypt and Colombo.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
On vessels—Continued.				
S. S. Karoa.....	Apr. 19.....	1		Landed at Colombo. Vessel from the United Kingdom via Egypt and Colombo.
S. S. Khyber.....	Apr. 10-May 4.....	4		From Liverpool, via Port Said, Suez, and Colombo. One case landed at Port Said Apr. 10, 2 cases at Colombo Apr. 22, 1 at quarantine, Fremantle, Australia, May 4, 1919.
S. S. Rio Negros.....	Oct. 4.....	1		At Port of Spain, Trinidad, from Bahia. From Montevideo, Aug. 31; Santos, Sept. 8; Rio de Janeiro, Sept. 15. Arrived Port of Spain, Oct. 4, 1919.
S. S. War Armour.....		7		En route from Naples to Aden and Colombo. Vessel arrived at Fremantle, Australia, June 22, 1919; Cases landed at Colombo.

TYPHUS FEVER.

Algeria:				
Algiers.....	May 1-June 30.....	82	11	
Do.....	July 1-Aug. 31.....	4		
Austria.....				Mar. 23-Apr. 5, 1919: Cases, 118.
Vienna.....	Mar. 23-Apr. 5.....	9		
Brazil:				Mar. 30-Apr. 5, 1919: Cases, 2.
Rio de Janeiro.....	May 4-June 21.....	3		
Do.....	July 6-12.....	1		
Do.....	Aug. 31-Sept. 6.....	4		
China:				
Changsha.....	May 11-17.....	1	1	
Antung.....	July 6-30.....	2		
Chosen (Korea):				
Chemulpo.....	Apr. 1-June 30.....	85	10	
Do.....	July 1-31.....	1		
Fusan.....	May 1-June 30.....	5	2	
Do.....	July 1-31.....	1		
Seoul.....	Apr. 1-June 30.....	147	28	
Do.....	July 1-31.....	1		
Colombia:				
Barraquilla.....	July 12-19.....		1	
Czecho-Slovakia:				
Prague.....	May 18-24.....	1		
Egypt:				
Alexandria.....	May 14-June 29.....	474	248	
Do.....	June 28-Sept. 16.....	464	149	
Cairo.....	Jan. 2-Aug. 5.....	4,091	2,270	
Port Said.....	Jan. 9-June 10.....	11	7	
Do.....	July 16-29.....	6	1	
Finland.....				Apr. 16-June 30, 1919: Cases, 25.
Provinces—				
Abo Och Bjorneborg.....	May 15.....	1		
Nyland.....	Apr. 16-May 31.....	4		
St. Michael.....	Apr. 16-June 30.....	15		
Viborg.....	Apr. 16-June 14.....	3		
Germany.....	Jan. 12-Feb. 22.....	344		Military.
Do.....	Feb. 22-Mar. 22.....	220		Civil.
Do.....	Mar. 28-Apr. 12.....	333		Civil, military, prisoners of war deserters.
Do.....	Apr. 13-26.....	62		55 cases among German troops and among prisoners of war.
Do.....	Apr. 27-May 17.....	126		Of these, 90 among Polish workmen and Russians; during same period, 106 cases among German troops and prisoners of war. In addition, Apr. 1-26, 41 cases were notified among Polish workmen and refugees.
Great Britain:				
Glasgow.....	June 8-July 5.....	13	2	
Dublin.....	Aug. 17-30.....	3		June 15-21, 1919: One case.
Dundee.....	June 30-July 5.....	3		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Greece:				
Athens.....	July 21-27.....		1	
Saloniki.....	May 15-June 14.....		5	
Do.....	July 6-Aug. 23.....		18	
Hungary.....				Feb. 24-May 9, 1919: Cases, 258.
Budapest.....	Sept. 24-May 9.....	124	6	
Debreczin.....	do.....	42		
Italy.....				Apr. 28-June 8, 1919: Cases 3,470 — Austrian prisoners, 3,321; Italian soldiers, 82; civil population, 67.
Do.....				June 9-15, 1913: Present in 14 Provinces, with 761 cases, viz, Austrian prisoners, 631; Italian soldiers, 23; Roumanian soldiers, 97; civil population, 10.
Do.....				June 16-22, 1919: Present in 12 Provinces, with 127 cases, viz, Austrian prisoners, 102; Italian soldiers, 8; civil population, 12; Roumanian soldiers, 5.
Do.....				June 23-29, 1919: Present in 14 Provinces, with 117 cases, viz, Austrian prisoners, 107; Italian soldiers, 3; civil population, 7.
Do.....				July 6-13, 1919: Cases, 14, occurring in 7 Provinces—7 prisoners of war, 5 civilians, 2 Italian soldiers.
Do.....				July 21-27, 1919: Cases 5, occurring in 4 Provinces: 1 Austrian prisoner; 4 civil population.
Do.....				July 28-Aug. 3, 1919: 6 cases in 3 Provinces; civil population.
Genoa.....	June 25-July 1.....	91		
Naples.....	May 12-June 22.....	50	16	
Do.....	June 30-Aug. 17.....	17	6	
Palermo.....	July 21-27.....	2		
Venice.....	Apr. 27-June 14.....	58	9	
Do.....	June 30-Sept. 14.....	42	6	
Trieste.....	June 6-12.....	1		
Japan:				
Nagasaki.....	June 16-July 1.....	3		
Do.....	July 14-Sept. 14.....	10	5	
Java:				
Batavia.....	Aug. 8-14.....	12	2	
Paseroean.....	Aug. 6-12.....	2		
Do.....	Aug. 20-26.....	1	1	
Surabaya.....	July 30-Aug. 19.....	5	1	
Mesopotamia:				
Bagdad.....	Apr. 19-June 6.....	34	22	
Do.....	July 26-Aug. 1.....	2		
Mexico:				
Guadalajara.....	May 1-31.....	1		
Mexico City.....	May 4-June 28.....	216		
Do.....	June 29-Sept. 13.....	272		
San Luis Potosi.....	July 27-Oct. 4.....			Present and in surrounding country.
Newfoundland:				
St. Johns.....	June 21-27.....	1		From vessel.
Palestine:				
Jaffa.....				Oct. 22-Dec. 22, 1918: Cases, 8; deaths, 3.
Portugal:				
Lisbon.....	June 22-28.....	1		
Do.....	July 26-Aug. 23.....	13	2	
Oporto.....	June 1-15.....	52		
Do.....	June 30-Sept. 13.....	94	42	
Russia:				
Archangel.....	May 15-June 1.....	9	2	
Riga.....	May 1-June 30.....	2,826		
Siberia:				
Vladivostok.....	June 9-30.....	104	9	
Do.....	July 1-31.....	56	13	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to Oct. 31, 1919—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Spain:				
Barcelona.....	May 15-21.....		1	
Madrid.....	May 1-31.....		1	
Do.....	Aug. 1-31.....	1		
Sumatra:				
Medan.....	June 26-Aug. 9....	34	4	
Syria:				
Mersina.....	Feb. 13-19.....			Present.
Smyrna.....	Sept. 20.....			Do.
Tunis:				
Tunis.....	May 24-June 21...	3	1	
Do.....	July 20-Aug. 29...	2	2	
Do.....	Sept. 21-27.....		1	

YELLOW FEVER.

Brazil:				
Bahia.....	Apr. 12-June 14....	48	15	Jan. 12-May 17, 1919: Cases, 43; deaths, 25. July 29, 1919, reported seriously prevalent in States of Bahia and Pernambuco.
			4	
Canal Zone.....	Aug. 10-12.....	1	1	Patient at Corinto, Nicaragua, at quarantine from S. S. Salvador.
Ecuador:				
Guayaquil.....	May 1-31.....	1	1	July 31, 1919; at Leon, Nicaragua, Aug. 2, 1919. Embarked Aug. 6 at Corinto
Naranjito.....	May 1-June 15....	2	1	
Honduras:				
Amapala.....	Aug. 28.....	1		
Mexico:				
Merida.....	June 30-Sept. 12..	20	7	State of Yucatan.
Nicaragua:				
Leon.....	Sept. 1.....			Present, and in vicinity.
Do.....	Sept. 5.....			Present.
Corinto.....	do.....			Do.
Peru:				
Department Piura—				
Paita.....	July 10-22.....	8	5	June 1-Aug. 12, 1912: Cases, 10; deaths, 6.
Piura.....	do.....	46	10	June 1-Aug. 12, 1919: Cases, 90; deaths 20.
Salvador:				
La Union.....	July 6.....	2		
St. Miguel.....	June 24-July 6....	4		
San Salvador.....	do.....	1	1	75 miles from city of San Salvador.